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©
ANNUAL REPORT

OF THE

OPERATIONS

OF THE

UNITED STATES LIFE-SAVING SERVICE

FOR THE

FISCAL YEAR ENDING JUNE 30, 1882.



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ORGANIZATION

OF THE

UNITED STATES LIFE-SAVING SERVICE.

(In conformity to Act of Congress approved June 18, 1878.)

SUMNER I. KIMBALL, General Superintendent.

WILLIAM D. O'CONNOR, Assistant General Superintendent.

CAPT. JAMES H. MERRYMAN, United States Revenue Marine, Inspector of Life-Saving Stations.

CAPT. GEORGE R. SLICER, United States Revenue Marine,	} Superintendents of Construction of Life-Saving Stations.
CAPT. JAMES H. MERRYMAN, United States Revenue Marine,	

ASSISTANT INSPECTORS.

First District.—CAPT. RUSSELL GLOVER, United States Revenue Marine, Portland, Maine.

Second District.—CAPT. DANIEL B. HODGSDON, United States Revenue Marine, Boston, Massachusetts.

Third District.—LIEUT. GEORGE E. MCCONNELL, United States Revenue Marine, Bay Shore, New York.

Fourth District.—LIEUT. CHARLES H. MCLELLAN, United States Revenue Marine, Tom's River, New Jersey.

Fifth District.—LIEUT. W. A. FAILING, United States Revenue Marine, Chincoteague, Virginia.

Sixth District.—LIEUT. EDWIN L. WADE, United States Revenue Marine, Norfolk, Virginia.

Seventh District.— * * *

Eighth District.—CAPT. LEONARD G. SHEPARD, United States Revenue Marine, Galveston, Texas.

Ninth District.—CAPT. JOHN G. BAKER, United States Revenue Marine, Oswego, New York.

Tenth District.— * * *

Eleventh District.—LIEUT. FRANK H. NEWCOMB, United States Revenue Marine, Chicago, Illinois.

Twelfth District.—CAPT. JOHN W. WHITE, United States Revenue Marine, East Oakland, California.

LIEUT. CHARLES F. SHOEMAKER, United States Revenue Marine, on special duty, Washington, D. C.

LIEUT. THOMAS D. WALKER, United States Revenue Marine, on special duty, Washington, D. C.

DISTRICT SUPERINTENDENTS.

First District.—JOHN M. RICHARDSON, Portland, Maine.

Second District.—BENJAMIN C. SPARROW, East Orleans, Massachusetts.

Third District.—HENRY E. HUNTING, Bridgehampton, New York.

6 ORGANIZATION OF UNITED STATES LIFE-SAVING SERVICE.

Fourth District.—JOHN G. W. HAVENS, Metedeconk, New Jersey.

Fifth District.—BENJAMIN S. RICH, Onancock, Virginia.

Sixth District.—JOSEPH W. ETHERIDGE, Manteo, North Carolina.

Seventh District.—CHAMPLIN H. SPENCER, Daytona, Florida.

Eighth District.—WILLIAM H. HUTCHINGS, Galveston, Texas.

Ninth District.—DAVID P. DOBBINS, Buffalo, New York.

Tenth District.—JEROME G. KIAH, Sand Beach, Michigan.

Eleventh District.—NATHANIEL ROBBINS, Benton Harbor, Michigan.

Twelfth District.—CAPT. JOHN W. WHITE, United States Revenue Marine (Acting), East Oakland, California.

ASSISTANT DISTRICT SUPERINTENDENT.

Third District.—NICHOLAS BALL, New Shoreham, Rhode Island.

BOARD ON LIFE-SAVING APPLIANCES.

CAPT. FRANK R. BABY, New York City, *President*.

CAPT. J. H. MERRYMAN, United States Revenue Marine, Inspector Life-Saving Stations.

CAPT. D. A. LYLE, Ordnance Department, United States Army.

LIEUT. T. D. WALKER, United States Revenue Marine, Assistant Inspector Life-Saving Stations, *Recorder*.

BENJAMIN C. SPARROW, Superintendent Second District, Life-Saving Service.

DAVID P. DOBBINS, Superintendent Ninth District, Life-Saving Service.

JOHN C. PATTERSON, Keeper Station No. 1, Fourth District, Life-Saving Service.

LETTER OF TRANSMITTAL.

TREASURY DEPARTMENT,
UNITED STATES LIFE-SAVING SERVICE,
Washington, D. C., November 24, 1882.

SIR: I have the honor to submit the following report of the operations of the Life-Saving Service for the fiscal year ending June 30, 1882, and of the expenditures of the moneys appropriated for the maintenance of the Service for that period, in accordance with the requirements of section 7 of the act of June 18, 1878.

A compilation of the statistics of wrecks and casualties which have occurred on or near the coasts and on the rivers of the United States, and to American vessels at sea or on the coasts of foreign countries, collected under authority of the act of June 20, 1874, is included.

I have the honor to be, very respectfully,

SUMNER I. KIMBALL,
General Superintendent.

HON. CHARLES J. FOLGER,
Secretary of the Treasury.

OPERATIONS
OF THE
UNITED STATES LIFE-SAVING SERVICE.

1882.

REPORT
OF THE
UNITED STATES LIFE-SAVING SERVICE.
OPERATIONS.

There were one hundred and eighty-nine stations embraced in the Life-Saving Establishment at the close of the last fiscal year. These were distributed upon the sea and lake coasts as follows :

First District (coast of Maine and New Hampshire)	7
Second District (coast of Massachusetts)	15
Third District (coast of Rhode Island and Long Island)	37
Fourth District (coast of New Jersey).....	40
Fifth District (coast from Cape Henlopen to Cape Charles).....	11
Sixth District (coast from Cape Henry to Cape Hatteras).....	24
Seventh District (eastern coast of Florida).....	5
Eighth District (Gulf coast).....	5
Ninth District (Lakes Erie and Ontario).....	10
Tenth District (Lakes Huron and Superior).....	12
Eleventh District (Lake Michigan).....	16
Twelfth District (Pacific coast).....	7
Total.....	1 89

Of the above stations, one hundred and forty-four were on the Atlantic, thirty-seven on the Lakes, seven on the Pacific, and one was at the Falls of the Ohio, Louisville, Kentucky.

The periods of the employment of surfmen at such of the stations as were manned with crews during any portion of the year, which periods respectively constituted what is termed the active season, are shown by the following statement:

Employment of surfmen, season of 1881-'82.

Districts.	Stations.	Number of stations.	Number of surfmen.	Period of employment.
1	1, 2, 3, 4, 5, 6, and 7	7	42	September 1, 1881, to November 30, 1881, inclusive.
	1, 2, 3, 4, 5, 6, and 7	7	49	December 1, 1881, to April 30, 1882, inclusive.
2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15.	15	90	September 1, 1881, to November 30, 1881, inclusive.
	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15.	15	105	December 1, 1881, to April 30, 1882, inclusive.

Employment of surfmen, season of 1881-'82—Continued.

Districts.	Stations.	Number of stations.	Number of surfmen.	Period of employment.
3	2, 3, 7, 8, 9, 15, 18, 22, 25, 28, 30, and 33.	12	72	September 1, 1881, to November 30, 1881, inclusive.
	1, 3, 4, 10, 11, 12, 13, 14, 16, 17, 19, 20, 21, 23, 24, 26, 27, 29, 32, 34, 35, 36, 37, and 38.	24	144	September 15, 1881, to November 30, 1881, inclusive.
	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, and 38.	30	252	December 1, 1881, to April 30, 1882, inclusive.
	2, 12, 17, 23, 25, 30, and 35.	7	42	September 1, 1881, to November 30, 1881, inclusive.
	1, 3, 18, 32, 13, 14, 15, 16, 17, 28, 29, 31, 39, and 40.	32	192	September 15, 1881, to November 30, 1881, inclusive.
4	1, 2, 15, 35, 36, 1, 12, 13, 14, 1, 22, 23, 24, 12, 33, 34, 35.	30	272	December 1, 1881, to April 30, 1882, inclusive.
	1, 2, and 11.	11	66	September 1, 1881, to November 30, 1881, inclusive.
5	1, 2, 3, 5, 4, 6, 7, 8, 9, 10, and 11.	11	77	December 1, 1881, to April 30, 1882, inclusive.
	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, and 23.	23	138	September 1, 1881, to November 30, 1881, inclusive.
6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, and 23.	23	161	December 1, 1881, to April 30, 1882, inclusive.
	25.	1	7	February 13, 1882, to April 30, 1882, inclusive.
8	1.	1	6	September 3, 1881, to April 30, 1882, inclusive.
	3.	1	6	September 1, 1881, to April 30, 1882, inclusive.
9	4.	1	6	September 6, 1881, to April 30, 1882, inclusive.
	5.	1	6	September 12, 1881, to April 30, 1882, inclusive.
10	6.	1	6	February 10, 1882, to April 30, 1882, inclusive.
	1, 2, and 6.	3	21	July 1, 1881, to December 15, 1881, inclusive.
11	3, 5, 7, and 8.	4	32	July 1, 1881, to December 15, 1881, inclusive.
	4, and 9.	2	2	July 1, 1881, to December 15, 1881, inclusive.
12	1, 2, and 6.	3	21	March 20, 1882, to June 30, 1882, inclusive.
	3, 5, 7, and 8.	4	32	March 20, 1882, to June 30, 1882, inclusive.
13	4, and 9.	2	2	March 20, 1882, to June 30, 1882, inclusive.
	10.	1	4	November 3, 1881, to March 31, 1882, inclusive.
14	10.	1	6	April 1, 1882, to June 30, 1882, inclusive.
	1.	1	8	October 29, 1881, to December 15, 1881, inclusive.
15	2, 4, 5, and 8.	4	28	July 1, 1881, to December 15, 1881, inclusive.
	8.	1	7	November 20, 1881, to December 15, 1881, inclusive.
16	6.	1	8	July 1, 1881, to December 15, 1881, inclusive.
	7.	1	7	November 23, 1881, to December 15, 1881, inclusive.
17	9, 10, 11, and 12.	4	28	July 1, 1881, to November 30, 1881, inclusive.
	1, 2, 3, 4, 5, 6, and 7.	7	52	March 20, 1882, to June 30, 1882, inclusive.
18	8.	1	7	March 23, 1882, to June 30, 1882, inclusive.
	9, 10, 11, and 12.	4	28	May 5, 1882, to June 30, 1882, inclusive.
19	4.	1	7	1881, to December 5, 1881, inclusive.
	5, 6, 10, 13, 14, 16, and 17.	7	49	1881, to December 16, 1881, inclusive.
20	12.	1	6	1881, to December 16, 1881, inclusive.
	6.	1	7	1881, to November 30, 1881, inclusive.
21	7.	1	7	1881, to December 31, 1881, inclusive.
	9, 11, and 15.	3	24	1881, to December 31, 1881, inclusive.
22	4, 6, and 12.	3	21	1882, to June 30, 1882, inclusive.
	5, 7, 8, 9, 10, 11, 12, 14, 15, 16, and 17.	11	88	1882, to June 30, 1882, inclusive.
23	8.	1	8	ber 20, 1881, to March 31, 1882, inclusive.

The Seventh District, comprising the eastern coast of Florida, is excluded from the foregoing statement for the reason that surfmen are not employed at the stations, which in this case are simply provisioned houses of refuge, the character of the Florida coast for the most part making escape from stranded vessels comparatively easy, and the main danger to shipwrecked persons being of perishing from hunger and thirst after gaining the shore, as the region is very sparsely inhabited. The houses of refuge are in the charge of keepers, who with their families are

required, after every storm, to search the beaches for several miles in opposite directions, as a further protection to such persons as may have been cast ashore.

STATISTICS.

According to the reports of the district officers there were two hundred and eighty-seven disasters to documented vessels within the field of station operations during the year. There were two thousand two hundred and seventy persons on board these vessels, of whom two thousand two hundred and fifty-eight were saved and only twelve lost. The estimated value of the vessels involved in these disasters was \$3,266,080, and that of their cargoes \$1,492,277, making the total value of the property imperiled \$4,758,357. Of this amount \$3,099,987 was saved, and \$1,658,370 lost. The number of vessels totally lost was sixty-seven. In addition to the foregoing there were fifty-eight instances of disaster to smaller craft, as sail-boats, row-boats, &c., on which were one hundred and twenty-eight persons, all of whom were saved. The property involved in the latter disasters was \$7,870, of which \$6,470 was saved and \$1,400 lost. The results of all the disasters to vessels within the scope of the service, including the smaller craft, aggregate, therefore, as follows:

Total number of disasters.....	345
Total value of property involved.....	\$4,766,227
Total value of property saved.....	\$3,106,457
Total value of property lost.....	\$1,659,770
Total number of persons involved.....	2,398
Total number of persons saved.....	2,386
Total number of persons lost.....	12
Total number of shipwrecked persons succored at stations.....	468
Total number of days' succor afforded.....	1,379
Number of vessels totally lost.....	67

The apportionment of the foregoing statistics to the Atlantic, Lake, and Pacific coasts, respectively, is shown in the following table:

	Total number of disasters.	Total value of vessels.	Total value of cargoes.	Total amount of property involved.	Total amount of property saved.	Total amount of property lost.	Total number of persons on board.	Total number of persons saved.	Persons lost.	Persons wrecked per- sons succored at stations.	Total number of days' succor afforded.	Number of disasters involv- ing total loss of vessels.
Atlantic and Gulf coasts. . .	198	\$1,710,525	\$965,607	\$2,676,132	\$1,624,597	\$1,051,535	1,225	1,211	14	37	1,108	48
Lake coasts* . . .	140	1,247,080	475,660	1,722,720	1,480,790	241,930	1,082	1,080	2	99	228	12
Pacific coasts . .	7	315,000	52,875	367,875	1,070	306,305	91	91	0	32	43	7
Total	345	3,272,605	1,493,642	4,766,227	3,106,457	1,659,770	2,398	2,386	12	468	1,379	67

* Including the river station at Louisville, Kentucky.

† Including 18 persons not on vessels in tables.

‡ Including 45 days' succor to persons not on vessels in tables.

The apportionment to the several districts is as follows:

First District.

Number of disasters.....	42
Value of vessels.....	\$161,450
Value of cargoes.....	\$36,000
Total value of property.....	\$197,450
Number of persons on board vessels.....	206
Number of persons saved.....	206
Number of persons lost.....	None.
Number of shipwrecked persons succored at stations	11
Number of days' succor afforded	11
Value of property saved.....	\$169,150
Value of property lost.....	\$28,300
Number of disasters involving total loss of vessels.....	4

Second District.

Number of disasters.....	31
Value of vessels.....	\$189,030
Value of cargoes.....	\$80,350
Total value of property.....	\$269,380
Number of persons on board vessels.....	162
Number of persons saved.....	162
Number of persons lost.....	None.
Number of shipwrecked persons succored at stations	51
Number of days' succor afforded	89
Value of property saved.....	\$207,705
Value of property lost.....	\$61,675
Number of disasters involving total loss of vessels.....	8

Third District.

Number of disasters.....	30
Value of vessels.....	\$354,510
Value of cargoes.....	\$97,955
Total value of property.....	\$452,465
Number of persons on board vessels.....	212
Number of persons saved.....	212
Number of persons lost.....	None.
Number of shipwrecked persons succored at stations	49
Number of days' succor afforded	163
Value of property saved.....	\$320,305
Value of property lost.....	\$132,160
Number of disasters involving total loss of vessels.....	8

Fourth District.

Number of disasters.....	39
Value of vessels.....	\$514,095
Value of cargoes.....	\$485,067
Total value of property.....	\$999,162
Number of persons on board vessels.....	274
Number of persons saved.....	273
Number of persons lost.....	1
Number of shipwrecked persons succored at stations	99
Number of days' succor afforded	416
Value of property saved.....	\$396,452
Value of property lost.....	\$602,710
Number of disasters involving total loss of vessels.....	6

Fifth District.

Number of disasters.....	33
Value of vessels.....	\$299,240
Value of cargoes.....	\$157,860
Total value of property.....	\$457,100
Number of persons on board vessels.....	222
Number of persons saved.....	220
Number of persons lost.....	2
Number of shipwrecked persons succored at stations.....	71
Number of days' succor afforded.....	227
Value of property saved.....	\$331,085
Value of property lost.....	\$126,015
Number of disasters involving total loss of vessels.....	12

Sixth District.

Number of disasters.....	10
Value of vessels.....	\$137,500
Value of cargoes.....	\$100,075
Total value of property.....	\$237,575
Number of persons on board vessels.....	93
Number of persons saved.....	86
Number of persons lost.....	7
Number of shipwrecked persons succored at stations.....	43
Number of days' succor afforded.....	153
Value of property saved.....	\$150,700
Value of property lost.....	\$86,875
Number of disasters involving total loss of vessels.....	7

Seventh District.

(There were no disasters in this district during the fiscal year within the field of station operations.)

Eighth District.

Number of disasters.....	13
Value of vessels.....	\$54,700
Value of cargoes.....	\$8,300
Total value of property.....	\$63,000
Number of persons on board vessels.....	56
Number of persons saved.....	56
Number of persons lost.....	None.
Number of shipwrecked persons succored at stations.....	1
Number of days' succor afforded.....	10
Value of property saved.....	\$49,200
Value of property lost.....	\$13,800
Number of disasters involving total loss of vessels.....	3

Ninth District.

Number of disasters.....	61
Value of vessels.....	\$689,980
Value of cargoes.....	\$371,865
Total value of property.....	\$1,061,845
Number of persons on board vessels.....	665
Number of persons saved.....	665
Number of persons lost.....	None.
Number of shipwrecked persons succored at stations.....	25
Number of days' succor afforded.....	74

Value of property saved.....	\$927, 810
Value of property lost.....	\$134, 035
Number of disasters involving total loss of vessels.....	6

Tenth District.

Number of disasters.....	18
Value of vessels.....	\$161, 465
Value of cargoes.....	\$18, 250
Total value of property.....	\$179, 715
Number of persons on board vessels.....	106
Number of persons saved.....	106
Number of persons lost.....	None.
Number of shipwrecked persons succored at stations.....	10
Number of days' succor afforded.....	16
Value of property saved.....	\$163, 995
Value of property lost.....	\$15, 720
Number of disasters involving total loss of vessels.....	None.

Eleventh District.

Number of disasters.....	61
Value of vessels.....	\$395, 615
Value of cargoes.....	\$85, 545
Total value of property.....	\$481, 160
Number of persons on board vessels.....	311
Number of persons saved.....	309
Number of persons lost.....	2
Number of shipwrecked persons succored at stations.....	58
Number of days' succor afforded.....	132
Value of property saved.....	\$388, 985
Value of property lost.....	\$92, 175
Number of disasters involving total loss of vessels.....	6

Twelfth District.

Number of disasters.....	7
Value of vessels.....	\$315, 000
Value of cargoes.....	\$52, 375
Total value of property.....	\$367, 375
Number of persons on board vessels.....	91
Number of persons saved.....	91
Number of persons lost.....	None.
Number of shipwrecked persons succored at stations.....	32
Number of days' succor afforded.....	43
Value of property saved.....	\$1, 070
Value of property lost.....	\$366, 305
Number of disasters involving total loss of vessels.....	7

To the number of persons mentioned in the foregoing statements as saved should be added twenty-nine persons rescued, who had fallen from wharves, piers, &c., and who would certainly have been drowned but for the assistance rendered by life-saving crews.

The investigations held in each case show that the twelve persons lost during the year were entirely beyond human aid.

The number of disasters exceeded those of any previous year by forty-four, but the loss of life is smaller, with one exception, than that of any former year.

The assistance rendered in saving vessels and cargoes this year has been unusually great, two hundred and ninety-eight vessels having been worked off when stranded, piloted out of dangerous places, repaired when damaged, or assisted in similar ways by the station crews. There were also seventy-six instances where vessels running into danger of stranding were warned off by the night signals of the patrol, and most of them thus probably saved from partial or total destruction.

In the year's operations, the surf-boat was used two hundred and eighty-four times, making three hundred and eighty-one trips. The self-righting and self-bailing life-boat was used eleven times, making fifteen trips. Smaller boats were used ninety-eight times, making one hundred and twenty-one trips. The river life-skiffs at Station No. 10, Ninth District, Louisville, Kentucky, were used thirty times, making one hundred and eleven trips. The breeches-buoy was used seventeen times, making one hundred and seventy passages. The wreck-gun was employed nineteen times, firing thirty-four shots. The rubber life-saving dress was used upon four occasions. The heaving-stick was used thirteen times. There were landed by the surf-boat three hundred and twenty-seven persons; by the life-boat twenty-seven; by the small boats forty-three; by the river life-skiffs one hundred and twenty-four; and by the breeches-buoy one hundred and fifty-eight. By surfmen swimming to them, five were rescued, and three men coming from a wrecked schooner in the ship's boat were assisted to land by a surfman swimming to them and helping the boat through the breakers. By casting lines over vessels, the life-saving crews brought ashore, without other appliances, ten persons, and rescued nine by dragging them out of the surf and undertow. In one instance, a disabled man lying at the foot of a cliff overhanging the sea, seven hundred and eighty feet high, was rescued by one of the life-saving party, who was lowered by his comrades down the frightful escarpment at the end of a line, by means of which both men were then drawn up to the summit.

As previously mentioned, twenty-nine persons were taken in various ways from the water, into which they had fallen from wharves, piers, &c.

The table given below contains a summary of results in the field of life-saving operations since the introduction of the present system :

GENERAL SUMMARY

*Of disasters which have occurred within the scope of life-saving operations from November 1, 1871 (date of introduction of present system), to close of fiscal year ending June 30, 1882.**

Total number of disasters.....	1,692
Total value of vessels	\$19,355,905
Total value of cargoes.....	\$9,922,809

* It should be observed that the operations of the Service during this period have been limited as follows: Season of 1871-'72, to the coasts of Long Island and New Jersey; seasons of 1872-'74, to coasts of Cape Cod, Long Island, and New Jersey; season of 1874-'75, to the coasts of New England, Long Island, New Jersey, and coast

Total value of property involved.....	\$29, 278, 714
Total value of property saved	\$18, 065, 352
Total value of property lost.....	\$11, 213, 362
Total number of persons involved *	14, 702
Total number of persons saved.	14, 295
Total number of lives lost †.....	407
Total number of persons succored ‡.....	3, 078
Total number of days' succor afforded.....	8, 429

LOSS OF LIFE.

The disasters involving loss of life during the past year within the scope of the operations of the Service are four in number. The ensuing narratives give a circumstantial account of each case, and establish the relation borne to each by the life-saving crews.

WRECK OF THE NELLIE.

The first wreck of the year involving loss of life within the scope of life-saving operations was that of the *Nellie*, a small, half-decked, schooner-rigged, scow-built boat, hailing from Detroit, Michigan, and bound from Holland to Charlevoix, Michigan, having on board a crew of only two men, named Hancock (brothers), and a small cargo, consisting mainly of fruit and vegetables. The investigating officer, Lieut. Walter Walton, of the Revenue Marine, assistant inspector of the Eleventh District, found that this vessel attempted on the morning of September 4, 1881, during a gale from the southwest and a heavy sea, to pass in between the piers at the entrance of the harbor at Muskegon, when she broached to and almost immediately capsized, her crew of two men being swept overboard and drowned before any assistance whatever could be rendered by either the life-boat crew or the tugs then lying alongside the piers a short distance inside the pier-heads.

According to the testimony of reliable witnesses, the accident was of as brief duration as it was sudden and unforeseen, not more than three minutes elapsing from the upsetting of the craft to the final disappearance of the two unfortunate sailors.

Immediately after the vessel capsized, the tugs, some four or five in number, lying alongside the river bank sounded their whistles to alarm the station crew, and instantly the tug *Alice Campbell*, casting off her

from Cape Henry to Cape Hatteras; season of 1875-'76, coasts of New England, Long Island, New Jersey, coast from Cape Henlopen to Cape Charles, and coast from Cape Henry to Cape Hatteras; season of 1876-'77 and since, all the foregoing, with the addition of the eastern coast of Florida and portions of the lake coasts and during the past two years the coast of Texas.

* Including persons rescued not on board vessels.

† One hundred and eighty-three of these were lost at the disasters of the steamers *Huron* and *Metropolis*—in the case of the former when the stations were not open, and in the latter when service was impeded by distance—and fourteen others in the same year, owing to similar causes.

‡ Including castaways not on board vessels embraced in tables.

lines, steamed out to the entrance, but too late to be of any service, the two sailors being nowhere in sight, and the capsized hull drifting to the northward behind the north pier, her cargo washing out and floating away.

Among the first to witness the sad accident was Mr. E. P. Bates, United States harbor inspector, who testified that he watched the movements of the *Nellie* from the trestle-work on the south pier, and saw her before she reached the entrance. She was going before the gale under the jib alone, and riding the sea pretty well. She had got abreast of the entrance and was drifting past when the crew tried to get more sail on the craft to hold her up. She slued broadside to the strong river current on one side, and a high combing sea on the other, and was tipped or capsized by a large comber, which threw the boat on her beam ends; a second capsized and buried her completely out of sight, enough to permit a third moderate breaker to pass over her. When she reappeared he saw that the vessel was bottom up, and that a man was to leeward trying to climb up on her bottom, and as she rolled to windward he was thrown up on the lee bilge. Soon another comber broke all over the submerged hull, and still the poor fellow held on. He then attempted to get astride the center-board, and in so doing turned his head to leeward as though looking for his companion, whose head the witness thought he could discern among the floating wreckage drifting behind the outer end of the north pier. The vessel had then drifted to within fifty to seventy-five feet of the pier-heads, when she was caught in an eddy and swung around for some little time. Then a big sea followed and buried the man hanging on to the vessel, and he disappeared and was not seen again. The vessel reappeared with her masts sticking through her hull. She had evidently touched ground; that is to say, her mast-heads had struck the bottom. The whole thing occurred in less than two minutes, as the combers followed each other swiftly.

On being interrogated as to the possibility of the two sailors being rescued by the life-saving crew, Mr. Bates declared that had the best kind of a boat's crew been within two hundred feet to leeward of the capsized vessel—as they necessarily would have been to leeward in rowing down the channel against both wind and sea—they could not have reached her in time to effect a rescue.

The *Nellie* was duly discovered by the surfmen at the station, and immediately upon the occurrence of the disaster and simultaneously with the sounding of the tug-whistle, Surfmen Beauvais, Poitras, and Dion, snatching up a heaving-stick and line, ran with all speed to the pier-head, upwards of one thousand yards distant, supposing the vessel would drift in behind the north pier, where a line could be got to her; but they were too late to succor the hapless men. They only found the vessel bottom up and her crew gone.

Three days after the accident a body was found by a tug captain floating in the river not far from the station. An inquest was held, and

the body identified as that of one of the ill-fated crew. A constant watch was maintained by the station patrolmen for the remains of the other man, but without avail.

WRECK OF THE THOMAS J. LANCASTER.

The next instance of loss of life within the range of station operations took place from the schooner Thomas J. Lancaster, a month after the disaster to the Nellie. The following account of the disaster is from the report of the investigating officer, Lieut. Frank H. Newcomb, of the Revenue Marine, assistant inspector, Sixth Life-saving District:

“The schooner Thomas J. Lancaster, of Philadelphia, Pennsylvania, George L. Hunter, master, six hundred and fifty-three tons, left Boston, Massachusetts, on Thursday, September 22, 1881, bound to Savannah, Georgia, with a cargo of a little over one thousand tons of ice. Her crew consisted of the captain, two mates, steward, and five seamen, and the captain's wife and three children were passengers; thirteen all told. At midnight on the 4th of October the vessel was about eight miles off Bodie's Island light, coast of North Carolina. The wind was light from the northwest, and the sea smooth. The mate took charge of the watch at midnight, and was steering south by west, according to the testimony of the man at the wheel, when the vessel grounded. Between 3 and 4 in the morning a heavy squall struck the vessel from the north-northeast, and while the crew were engaged in taking in sail she stranded, with her head to the westward, pointing inshore. The point of disaster was about three and a half miles north of Life-Saving Station No. 18, Sixth District, North Carolina, and just north of the Loggerhead Inlet, which is closed up. As the sea was making rapidly and breaking over the rail, and the vessel commenced to pound heavily, the large boat was launched over the side of the vessel to leeward, with the intention of taking to it at daylight and trying to land. It was not then known whether the schooner had stranded on the main beach or on some outlying shoal. The second mate and three men got into the boat to keep it from being smashed against the side of the vessel. The rest of the crew were engaged in collecting clothes and supplies to put in the boat. Soon after the boat was launched a red light was seen inshore, which afterward proved to be the Coston light of the patrolman from Station No. 18, who first discovered the wreck. The boat, which was hanging by a new three or three and a half inch line from the vessel, was shipping water constantly, and one man was at work bailing it out with a bucket to keep it free. About half an hour after the boat was launched a sea swept it away, parting the painter and drowning two of the men, while the second mate and other man succeeded in holding on to a rope fast to the vessel which led to the stern of the boat. The second mate's leg was broken, it is supposed by getting a turn of the rope around it, and he was supported in the water alongside the vessel until two of the crew, who heard them calling for help, let a bow-line down over the side and hauled

them on board, the second mate first, then the man. The second mate was put in the galley for safety. About this time the seas dashed in at the cabin windows and the vessel commenced to break up aft. The captain's wife and three children were then taken to the fore-castle, but the water coming in there, they were moved farther forward to the windlass-room. After this the vessel's decks commenced to break up and the ice to come out. All hands then took refuge on the top-gallant fore-castle. The second mate was lashed in the fore-rigging. The mate took one child out on the bowsprit, and Mrs. Hunter was lashed to the bitts with the youngest child, eighteen months old, in her arms. The other child was put in charge of the steward. Pretty soon a sea washed over the fore-castle and swept the child from the steward down to leeward under the jib-sheets. The captain went after it and succeeded in getting hold of it, but another sea came and washed it away from him overboard. The same sea took the baby from its mother's arms and washed it overboard, and both children were lost. In trying to save his child the captain was badly hurt, being dashed against the capstan and cat-head by the seas. Soon after another sea was shipped, which washed the captain off the starboard bow overboard. As the current swept him around the bow, he caught hold of the bobstays and climbed up on them. After resting there awhile, he crawled over the port bow and seated himself alongside his wife, who was then lashed in the port fore-rigging with the steward and second mate. The captain and the rest of the survivors took refuge on the bowsprit and jib-boom.

“By this time the life-saving men from Station No. 18 had appeared upon the scene and commenced operations. The wreck had been discovered by Benjamin O'Neal, a substitute for the No. 1 surfman, who was home sick. He was on the northern patrol from 3 A. M. to sunrise. It was about 4 A. M.; the weather was misty and thick, and as soon as he made out that a vessel was ashore he burned his red light and started for the station, which he reached about daybreak, and immediately called the keeper. The crew were aroused, and while two of them went after their horses, the rest, including Stanley Midgett, a volunteer who had been hauling wood to the station, started with the mortar-cart, containing the beach apparatus. The south patrolman had not yet returned. They succeeded in getting the mortar-cart some distance, when the force of the gale compelled them to stop. The two men with their horses then joined them, and they again started up the beach in the face of the gale. When about half a mile on their way they were joined by the south patrol, who hitched on his horse, making in all a force of eight men and three horses hauling the mortar-cart. They arrived at the scene of the wreck about two hours after they started, probably between 7 and 8 o'clock. At times they were up to their knees in the water running across the beach from sea to sound, which, with the almost constantly shifting sand under the mortar-cart wheels made the

hauling extremely difficult and exhausting. The Signal Service operator, whose sworn statement was taken, testified that the gale commenced at Hatteras, about half past 3 in the morning. At 5 A. M. the velocity of the wind was sixty-four miles per hour. At Kittyhawk it was blowing at the rate of sixty-seven miles. At noon the wind had moderated to forty miles. From then until sundown the average velocity was about thirty-five miles per hour. As the wreck occurred about half way between Kittyhawk and Hatteras it is presumable that the force of the gale was about the same there. At times on the way up the beach the sea was washing pieces of the wreck-stuff against the wheels of the mortar-cart.

“As soon as possible after reaching the scene of the wreck the gun was placed in position and fired. The vessel was lying nearly head on to the beach at a distance estimated to be about three hundred yards from high-water mark. The first shot took the line through the mizzen rigging, and probably dropped over the stern into the sea. One of the men on the wreck attempted to reach the shot-line, but before he could work his way aft the strong current setting to leeward, between the wreck and the shore, acting on the bight of the line, hauled the shot back through the rigging into the sea. The line was then hauled ashore, the men faking it down in the box and on the beach as it came in. A second shot was then fired with an eight-ounce charge of powder, which parted the line close to the shot. A third was then fired with a six-ounce charge with a like result. The shot-line was then taken to the cart to keep it clear of the water on the beach, and faked down on the pins so as to leave the dry end up when ready for use. A fourth shot was then fired with a six-ounce charge, which threw the line across the head stays, the bight running down to the end of the jib-boom, where it was caught by one of the men on the wreck, who took a turn with it around the jib-boom to hold it, but not before the current had swept the line down so that the shot had been drawn up to the top of the water under the jib-boom. About this time the keeper and crew of Station No. 17 arrived. The wreck had been discovered from the window of that station at daylight by one of the surfmen. As soon as they could get ready they started with their boat-wagon down the beach to New Inlet, where they crossed on the inside, landing at the fish-houses on the sound side of the south point. They waded across the low beach through the water to the wreck, carrying with them the station medicine chest, seven cork jackets, a Merriman suit, and two heaving-lines and sticks. Upon their arrival they joined the crew of No. 18 in their efforts to establish communication with the wreck.

“The men on the wreck having succeeded in getting the shot-line to the top-gallant fore-castle, the tail-block and whip-line were bent on at the shore end, and they attempted to haul it aboard. As soon as the two parts of the whip-line reached the water, the current swept them to lee-

ward and the men on the wreck were unable, through exhaustion, to haul the whip-line off any further. The life-saving men then walked the shore end of the shot-line to windward and bent on a single part of the whip, but the men on the wreck were unable to haul that off. The hawser was bent on with the same result. Then the tail-block and double-whip were again bent on and walked to windward repeatedly, and slacked away to enable the men on the wreck to haul them off a little at a time; but after getting the whip off nearly half way the sailors, evidently tired out, stopped hauling, and made the shot-line fast. The life-saving men from No. 18, upon their arrival, were nearly worn out with their extraordinary exertions in hauling the mortar-cart under so many difficulties, which, added to the labor performed in their attempts to open communication with the wreck by means of the beach apparatus, and the fact that they had had nothing to eat since the day before, makes it almost incredible that they were able to do anything at all. There is no doubt that their failure, through no fault of their own, to work the apparatus successfully and take the survivors off the wreck promptly had a depressing effect upon them, as they had gone there in the belief that all hands would be rescued from the wreck in a short time. The keeper of No. 17 was suffering from the effects of a severe attack of fever; and this crew, also, had had nothing to eat since the day before. Notwithstanding all this, the two keepers, seeing that nothing more could be done with the beach apparatus, decided to send to No. 18 for the surf-boat, hoping that the wind and sea might moderate so that the survivors could be rescued before dark. Under the circumstances, it is evident that this was the only course to pursue. Accordingly, three of the crew of No. 18, with two horses, were started down the beach to the station after the surf-boat. On the way down they met one of the surf-men returning with a shot-line that he had been sent after when the second shot had parted the line. They took him, with his horse, back to the station, and hitched on to the boat-carriage, but were unable to haul it up the beach with their three horses. Soon after the men had left for the surf-boat a seaman, John Lilley, jumped overboard and swam for the shore. He was met in the breakers by the keeper of No. 18 and some of his men and landed safely. The keeper of No. 18 testified that the current was running so strong that it would sweep him off his feet when waist-deep in the water. After this another seaman jumped off the wreck and tried to swim ashore, but was drowned in the attempt. The keeper of No. 18, who had tried to reach him, upon coming out of the water staggered and fell on the beach completely exhausted and taken with a severe chill. He was put into his cart with the man who had been saved, and taken to the station. On the way down he met the keeper of Station No. 19 coming up on his horse, and requested him to do all he could to rescue the survivors. The mate of the vessel, after the seaman was drowned, tied a cork fender to himself, and with a piece of shot-line around the line which was still fast between the vessel and

the shore, attempted to make his way to the beach. Before any assistance could be rendered to him from the shore he disappeared under the water and was seen no more.

“When the keeper of No. 19 arrived at the wreck, being the senior in command, he started the entire crews of Nos. 17 and 18 to bring the surf-boat from the latter station. It was now probably nearly 3 in the afternoon. An extra shot-line having been brought in the meantime, the keeper of No. 19 determined to make an attempt to send cork jackets off to the wreck, it being improbable that the survivors could be taken off before dark. He fired one shot, which fell short, and then, cutting the shot-line off at the shore end, fired another, which also fell short, although he testifies that one of the men on the beach said he saw a man on the wreck throw the bight of the line overboard from the end of the jib-boom, where it had lodged. This was probably a mistake, as no one on the vessel knew of the circumstance. About sundown Captain Hunter fell off the bowsprit, apparently unable to maintain his position any longer, and drifted to leeward with one arm through a life-preserver. He never reached the land. Just before dark the keeper of No. 17 and the men who had gone for the boat returned without it, having been unable to haul it up the beach. They decided to return across the inlet to their station in order to get something to eat and to resume their patrol of the beach for the night. This they accomplished after a severe struggle, the men having to wade with their boat across the shoals whenever they could obtain a foothold. The keeper of No. 19 also returned to his station, leaving two or three men from No. 18 on the beach to keep watch. About 7 P. M., the wind having moderated a little, the keeper of No. 18 having rested and partly recovered from his sickness, started with four of his men and four horses to haul the surf-boat up to the wreck. They succeeded in getting her up there in about three hours from the time of starting. They remained on the beach all night, keeping up a fire and making several futile attempts to launch the boat. It was not until the next morning that they were enabled to get the boat clear of the beach. They succeeded in getting under the bow of the wreck, but could not hold on and were obliged to come ashore again. The sea was still very rough and the boat was constantly shipping water. They then waited until about 8 A. M., when, the tide having fallen and the sea moderated a little, they made another attempt to launch, which was successful. They made fast to the vessel under the bow, and, sending two men on board, lowered the survivors into the boat, and watching their chance, all hands were landed safely on the beach. The survivors, six in all, were Mrs. Hunter, her child, the second mate, two seamen, and the steward. The child died that night at the station from exposure in spite of all efforts made to save it. Harry Brien, one of the seamen, testified that after the captain had fallen overboard he came in off the jib-boom that evening about half past 9 and found that the child had

slipped from its lashings and was hanging head down by its toes alongside of the bowsprit. He picked it up and covering it with canvas laid it on top of the bowsprit. After they had landed, the keeper of No. 16, with three of his men and three from No. 17, arrived at the wreck, also the keeper and crew of No. 19. The keeper of No. 17 was sick and had sent for the keeper of No. 16 to take his place. The survivors were taken to No. 18 and made as comfortable as possible, the keeper and men placing their clothes and possessions generally at their disposal. Keeper Midgett's wife or some other woman from the neighborhood was with Mrs. Hunter constantly while she remained at the station, attending to her wants. The box of clothing shipped to Station No. 17 by the Woman's National Relief Association was subsequently sent for and the contents placed at the disposal of the survivors. The supply of women's underwear, and men's clothes and shoes, and tea, sugar, and beef-extract were needed especially, and proved to be of great benefit to the survivors, who were completely destitute. The broken leg of the second mate received all the attention possible until the arrival of the Marine Hospital surgeon from New Berne, North Carolina, who attended to it. Mrs. Hunter, under the care of her friend, Mr. Vanderherchen, of Philadelphia, who had been sent for, and the two seamen and steward, were taken to Elizabeth City in the revenue sloop Saville on their way North, and free passes were procured for the two seamen to Boston and for the steward to New York.

"It was reported that the captain's body was robbed of \$75 after it was found on the beach. This story is entirely without foundation, and is unjust and cruel to the life-saving men, who made coffins for the dead at their own expense and buried them decently, besides helping the survivors in many practical ways, without thought of or desire for recompense.

"It should have been mentioned before that while Keeper Midgett and the crew of No. 18 were trying to open communication with the wreck on the first morning with the beach apparatus, a citizen came up the beach and reported that a dead body had washed ashore down below. It was reported the next morning that the body was warm when first discovered. Had it been known at the time, an attempt might have been made to resuscitate it.

"Mrs. Hunter was suffering so much from exposure and bodily injuries received during the time that she was on the wreck, in addition to the loss of her husband and three children, that it would have been impossible to elicit any information from her in regard to the cause of the disaster. As Hatteras light bears due south from Bodie's Island light, and the vessel was steered south by west after passing the last-named light, it would seem that a mistake was made in the course either by the captain or mate, neither of whom appear to have been familiar with the coast. The vessel had been altered from a center-board to a keel schooner, which may account partly for her breaking up

so soon. She was a total wreck, nothing being saved from her but part of her sails and running and standing rigging. The captain and three children, mate, and two seamen had been picked up and buried on the beach at last accounts, leaving only one seaman to be accounted for.

"In view of the foregoing facts, I respectfully submit the opinion that no blame attaches to the men of the Life-Saving Service for failure to rescue the crew of the Lancaster sooner than they did. The failure to work the beach apparatus was caused by want of proper action on the part of the crew of the wreck in hauling the whip-line off. From the position of the wreck after the disaster, I am confident that if they had taken the shot-line to the capstan on the top-gallant forecastle there would have been little difficulty in getting the whip-line off, when all would have been saved in a short time. Also, if all hands had taken to the rigging at first they would probably have been taken off safely in the end."

WRECK OF THE SLOOP DAUNTLESS.

The third wreck of the year involving fatality within the scope of station activity was that of the sloop Dauntless, which took place on the 21st of February, 1882. The following narrative of the occurrence is given by the officer who conducted the investigation—Lieut. T. D. Walker, of the Revenue Marine, an assistant inspector of the Life-Saving Service:

"The sloop Dauntless, of Chincoteague, Virginia, twelve and a half tons burthen, with a crew of three men, viz., Sewell Collins, John W. Howard, and James Taylor, left New Inlet, Virginia, for Chincoteague on the morning of February 21, 1882, with a cargo of planting-oysters. A fresh southerly wind prevailed all day, causing a rough sea, the vessel running up the coast under the jib and double reefed mainsail. The survivor, Howard, states that the weather was so boisterous and squally that he advised the captain (Collins) to run into Metomkin or Gargathy Inlets for a harbor before sundown, as he feared the danger of attempting to enter Chincoteague Inlet after dark. When off Wallops Island, soon after sunset, the deck-load was washed overboard. At about the same time the strap of the jib-sheet block was carried away, and after getting the sail under control they set it 'bobbed.' By this operation but a small portion of the head of the sail was presented to the wind, and the sloop was under tolerably snug canvas. As she neared the outer buoy off Chincoteague Inlet the sky became overcast by an inky cloud, which came up from the westward and brought a violent shift of wind from that direction. This compelled a dead beat to windward to enter the harbor. The tide, however, was flood, and in their favor. Howard reports that although the sloop was provided with the usual running lights, none were used, the only lamp lighted being a small one in the cabin.

"After making two or three tacks in the channel the main gaff broke

in two and split the sail, the latter very soon blowing completely out of the bolt-rope. The sloop was then on the port tack and rapidly nearing the north side of the channel, where lies what is known as Fox Shoal, a spit of sand extending from the southerly end of Chincoteague Island, between Chincoteague and Assateague Inlets.

“To beat in with no after-sail on the vessel was impossible, and to allow her to run before the gale seaward would be dangerous in the extreme, as she was poorly equipped and without the means of batten-ing the hatches. Captain Collins quickly decided what he would do. Calling Howard to relieve him at the wheel, he ran forward and let go both anchors. The sudden jerk with which the vessel brought up as the ground-tackle held her was so great that Howard was pitched violently forward over the cabin and onto the hatches, where he fell on his back. He says the sea almost ‘pitch-poled’ her. Upon swinging to her anchors she lay right in the breakers on Fox Shoal.

“The hatches were soon washed overboard, and before long the sloop filled and sunk on the shoal. This compelled the crew to take to the rigging, one of them, Taylor, going up on the port side, while Collins and Howard ascended to starboard. It appears that Collins started up first, but Howard, who was the stronger and the more robust of the two, passed him in the rigging and reached the mast-head, while Collins remained about half way up. Collins had the reputation of being a daring and reckless man, but the realization of his mistake in attempting the passage of the inlet in the night, and the dreadful peril in which he found himself, seemed to completely overcome him, as Howard relates that he said very little beyond reproaching himself and expressing regret that he had not taken Howard’s advice and sought shelter in one of the other inlets before nightfall. Taylor, a youth nineteen years of age, when half way up the port rigging, was washed off. He grasped a rope hanging from the broken gaff, and Howard quickly slid down and assisted him back into the rigging. Howard tried to persuade them both to climb higher, but they seemed unable to do so, and Collins soon gave up, and was washed away. The death of Collins appeared to dishearten Taylor, for he said to Howard, ‘Collins has gone, and I am going too.’ This brought Howard down again to his assistance. It was of no use, however, and Howard was compelled to ascend again for his own safety. The air was bitter cold, and Taylor soon afterwards dropped into the water and was swept out of sight in an instant. Howard says that while he was endeavoring to help the poor fellow he seemed fully conscious of his inability to hold on much longer, and uttered a tender message to his father and mother, to be delivered by Howard, in case the latter survived. Taylor’s death must have occurred shortly before 9 o’clock, and from that time onward Howard’s vigil was a lonely one. Perched as he was on the lower mast-head, with his arms around the topmast, the thumping of the vessel as the more heavy seas struck her would at times almost throw him off. With the

falling of the tide, however, the wreck became steady, and his position then was not so bad. His principal danger after that was of becoming so benumbed with cold as to be unable to hold on until daylight. To ward this off he kept in motion as much as possible by beating his body with his hands.

“Although these events occurred at a distance of but a little over three miles from the station (No. 7, Fifth District), nothing was known of the disaster by the life-saving crew until daylight. When it is stated that the extreme southerly limit of the station patrol, namely, the northerly side of Assateague Inlet, is a mile and a half distant from where the wreck lay; that a considerable area of shoal and broken water intervened; that the night was a very dark one, and that no signal of any kind was made from the vessel, which was also without lights, it can be readily understood why she was not seen during the night.

“The sloop was discovered by Surfman Henry Birch, with the aid of a glass, at early dawn (5.25 o'clock), and ten minutes later (5.35) the boat was out and on its way to the beach. The wreck was reached, after a hard pull, at ten minutes past 7. Considering that an hour and a half was consumed in pulling the boat to the scene of disaster, it is apparent that even at that hour, with a low tide, the sea was rough.

“On arriving alongside the sloop she was found to be practically a total wreck, with the stern gone and the hull full of water and beyond hope of saving; so, after satisfying themselves that there was no one on board, they pulled in to the beach and there discovered footprints as of one person going in the direction of Chincoteague village, about three miles distant. It seems that as the tide receded the sea fell with it, so that towards daylight Howard found he could descend from aloft without danger. On reaching the deck he spent a few moments in vigorous exercise to recover the full use of his limbs, and then, ascertaining that the water alongside was scarcely knee-deep, he sprang over the rail and started for the shore, which he soon reached, thankful, indeed, for his escape from the fate which had overtaken Collins and Taylor. He proceeded up the inner beach as far as a fish factory, a mile or two above the inlet, where he took breakfast (it being then daylight), and procured a hat to replace the one he had lost, and then continued on to the village, where he telegraphed to the families of Collins and Taylor the sad news of their death. The life-saving crew, after following the footprints some distance and satisfying themselves that the person who made them had reached a place of shelter, returned to the station for breakfast at about 9 o'clock.

“A brother of Captain Collins informed me that the captain had been repeatedly remonstrated with by himself and others for his recklessness in running in and out of the inlets after dark, as even the most experienced boatmen and fishermen rarely attempt such a thing unless the sea is smooth and other conditions are equally favorable. He also said he had long expected just such an accident, and was not at all sur-

prised at it. He freely concurred in the opinion expressed by others that under the existing circumstances it was impossible for the life-saving patrols to have discovered the wreck during the night with nothing but the mast showing above water. If a signal had been made as soon as the vessel anchored it is probable it would have been seen, and the past record of the crew of Station No. 7 would lead to the belief that they would have responded by launching the boat. But even then, when we remember how quickly the two men were lost, it is doubtful if they could have reached the wreck in time to do more than rescue Howard. It seemed to be the belief of sea-faring men familiar with the inlet that if the captain, instead of anchoring when he found his vessel unmanageable and in the breakers, had allowed her to drive well up on the shoal, they would all have escaped, whereas, by anchoring on the edge of the spit, the complete wreck of the vessel and the loss of his own life and that of another was the result. The bodies of the men had not been found at the time of my visit, although searching parties from the station had scoured the adjacent shores daily, both inside and outside, for more than a week after the disaster. Garments, supposed to have been worn by the lost men, were picked up, however, and this leads to the conviction that the bodies will never be recovered.

"The above is believed to be a true statement of the case, and in view, therefore, of all the facts, I respectfully submit that the death of Collins and Taylor was not due to neglect of duty on the part of the crew of Life-Saving Station No. 7, and that the latter are entirely free from blame in the matter."

WRECK OF THE W. J. STAIRS.

The same officer who made the investigation in the case of the Dauntless, Lieut. T. D. Walker, of the Revenue Marine, also investigated the circumstances attending the fourth and last wreck of the year which occasioned loss of life, that of the bark W. J. Stairs, which took place on the coast of New Jersey, on the 1st of March last. His report of this disaster is given below :

"The bark W. J. Stairs, one thousand and sixty-two tons burthen, of Maitland, Nova Scotia, Kenneth McKenzie master, bound from Liverpool to New York, with a cargo of one thousand two hundred tons of salt, grounded, at 9.30 P. M., March 1, 1882, on the outer bar off Long Branch, New Jersey, about one mile north of Life-Saving Station No. 5, Fourth District.

"There was a light breeze from the southward, with thick fog. The mate (McAuley) describes the latter as so dense that he could not see objects the length of the vessel distant. A long easterly ground-swell was breaking in tremendous surf upon the bar. When the bark struck she was moving slowly through the water, making a west course, under topsails, jibs, and the mizzen stay-sail; the foresail being clewed up and other sails furled. The mate was in the rigging at the time, anxiously

peering into the fog for the Highland and Sandy Hook lights, which he knew were not far distant.

"Instantly every man was on deck, and an attempt made to head the vessel off-shore by the proper disposition of the sails. In this they did not succeed, owing to the lightness of the breeze; but the sea very soon cut her stern to the northward and thus brought her broadside to it, with a heavy list seaward. In that position her decks were immediately flooded by the seas which tumbled over the rail in quick succession and with such volume that before long the bulwarks were carried away and the decks stove in. This settled the fate of the vessel, and compelled the crew to take refuge on the poop; the sails, which until then remained set, being allowed to run down by cutting the halyards. Although within three hundred and fifty yards of the bluff, which at that point is twenty-five or thirty feet high, nothing could be seen of the shore except the dim outline of the houses, which was occasionally visible for a few moments through the fog. The crew burned oakum saturated with oil as a signal of distress; but finding this method of communication useless, it was abandoned, and preparations were made for launching a boat. While this was being done a heavy sea dashed over the wreck and swept the boat away.

"By midnight the crew began to realize the peril of their position, and they halloed from time to time in the hope of attracting the attention of people on shore. These cries were heard by Walter Taber and others at their homes, as well as by the watchman on duty at the West End Hotel, Louis Bolten. Taber fixes the time at which he was aroused as about midnight, while Bolten, who, it is to be supposed, was wide awake and on the alert, first heard the outcry at 1 o'clock (March 2). Taber arose and dressed, and, in company with his wife and brother, proceeded to the beach, where, after locating the vessel, they built a fire; doing nothing further until the arrival of the life-saving crew. The watchman, however, without loss of time, after ascertaining whence the cries came, hurried south to the station, and gave the alarm at about 2 o'clock.

"Surfman Chasey had the north patrol from 8 P. M. to midnight. He says in his testimony that he neither saw nor heard anything that would lead him to suppose there was a wreck on the bar; the fog being so heavy as to partake almost of the nature of rain. As the mate states that no outcry was made until midnight, it is probable Chasey had already passed southward and was out of hearing; especially when we recall that what little wind prevailed was from the south, which would carry the sound in the opposite direction. In this connection it should be remarked that the patrols between Nos. 4 and 5 are compelled to traverse the bluff instead of the beach, on account of the series of jetties constructed to prevent the further encroachment of the sea. These jetties or rows of piling extend from the foot of the bluff out beyond low-water mark in some places and render travel at night exceed-

ingly difficult, especially in stormy weather, as it is only at low-water, and then by watching their opportunity between the seas, that the men can pass them.

“Surfman Robert Lloyd relieved Chasey at midnight, or soon after, and he also passed the wreck on his way north without discovering anything amiss. Accepting his evidence as true, it is apparent that Taber had not then kindled the fire or it would certainly have attracted attention. It was not until his return, at a little after 2 o'clock, that he discovered the dim outline of the sails and spars of the vessel through the fog, and at the same time saw the fire below him, on the beach, with two or three persons standing near. Without delaying to burn the usual signal to the stranded vessel, he at once hurried forward to arouse the life-saving crew. When half way to the station, he met Keeper Green, lantern in hand, running towards the wreck. Green told him the hotel watchman had given the alarm, and that the rest of the men were following as rapidly as possible with the beach apparatus. He also directed Lloyd to continue on and take his place at the cart.

“Keeper Green reports the time of leaving the station with the apparatus as a quarter past 2, and of arrival abreast of the wreck as half an hour later, or a quarter before 3. The cart was quickly unloaded and the gear arranged for use, and in fifteen minutes from the time of the arrival of the life-saving crew, (say 3 o'clock), the gun was fired and the shot-line thrown to the vessel. The shot just cleared the main-topsail lift, and there it hung by the line until the mate sprang aloft and with the aid of one of the seamen passed it down on deck. This operation was an extremely dangerous one, as the masts were swaying and jerking terrifically, and threatened to fall at any moment; in fact, the fore and main masts did fall, with a crash, a few minutes after the mate reached the deck. With the falling of the masts, the bark began to break up; the stern, on which the men were congregated, breaking off just forward of the mizzen rigging as clean almost as if sawed completely through. This portion of the hull remained in position, listed off-shore, with the port rail almost in the water, while the sailors clung to the opposite or starboard rail as far aft as they could get. The breaking of the vessel asunder was distinctly heard on shore, the sound of it being likened to the rattling of musketry.

“The imperiled crew readily understood the purpose of the shot-line, and commenced hauling it on board. This was slow and laborious work on account of the strong set or current which carried the bight of the line, as paid out from the shore far away to the north and entangled it with the drifting wreckage. Upon securing the whip-block, it was hitched to one of the mooring bitts on the starboard quarter, and the sailors made signal of that fact by shouting to the people on shore.

“While the crew anxiously awaited the sending off of the hawser, the mizzen-mast fell over the side, and almost simultaneously the stern careened towards the shore, throwing the men who were clinging to the

now partly submerged rail into the water. They had before this taken the precaution to stretch life-lines across the deck, from rail to rail, and were thus enabled to climb to the opposite rail on the port quarter. It was at this moment, when every man was struggling for his own safety, that the cabin-boy, Charles Dixon, was lost. The mate (McAuley) conveys some idea of the desperate situation of the crew when the stern shifted to starboard, by the remark that he 'did not expect to see half of them gain the opposite rail.' He also says, 'There was much confusion; every one gasping for help in the water; and when we were all safe on the other side, the boy was missed.'

"It appears that the boy clutched the boot of a man just above him; the man, with no strength to spare and intent on his own preservation, passed a rope to the poor little fellow, and then withdrew his foot from the boot. The boy must have been utterly helpless and benumbed from the exposure of the preceding hours, for he was unable to retain his hold of the rope, but fell backward with an agonized shriek into the water and was swept away. But for the life-lines rigged, as before described, it is probable many others would have been lost.

"The canting of the stern inshore placed the whip-block and lines attached beyond reach of the men, and their communication with the beach was thus practically cut off. It must have been about this time that the line was chafed asunder by the mass of broken timbers brought into contact with it in the surf. The break was immediately discovered by the men who held the shore end of the line, and the fact was reported to the keeper. The fog was still impenetrable, and in their uncertainty of the position of the people on the wreck, the life-saving crew decided to await daylight before attempting to re-establish communication. The south patrol from No. 4 at 4 o'clock came through to the scene of the wreck on failing to meet any one from No. 5, and assisted in all the subsequent operations.

"Just before daylight a peculiarly thrilling episode occurred. All the station life-saving apparatus was on the ground, and the gun loaded in readiness to again carry the line over the wreck. During a momentary lightening of the fog it occurred to the keeper to burn a Coston signal, in the hope that it would be seen by the crew and encourage them. Its effect was speedily known. The steward of the ship, a colored man, upon seeing through the mist the faint ruddy glare of the patrol light and the indistinct figures upon the bluff, was so elated at the prospect of his ultimate deliverance that he commenced singing the song popularly known as 'The flag that makes you free,' his shipmates joining in with an energy that sent a thrill through all who heard the melody above the roar of the surf. The effect on shore was electrical. Several of the beachmen assured me that it was like magic. The fear had been growing upon them that several of the crew had perished, but the volume of the outburst when the chorus was reached soon dissipated it. The sea was all this time driving the stern, little by little, nearer to the

beach, so that towards daybreak they were within hailing distance, and the luckless sailors were able to report their number and condition to those on shore. Fortunately, the fog dispersed with the approaching day, and disclosed the men to plain view. No time was lost in bringing the gun to bear, and then it was again fired. The shot went whizzing through the air, but without the line, the latter falling to the ground a moment after the shot left the gun. It had parted near the shot. The end was quickly secured to another shot, and that carried the line directly among the group of sailors. The breeches-buoy was soon rigged, and in less than half an hour later the survivors, thirteen in number, were safely landed, and were on their way to the station. They were in a pitiable condition, being nearly destitute of clothing, benumbed, and badly bruised. Upon arrival at the station, at near 7 o'clock, they were at once given a hearty breakfast and dry clothing, it being found necessary in doing the latter, to send out and beg from the neighbors what was lacking after the supply belonging to the station men was exhausted. The men left by train the same day for New York. Excellent service was rendered by W. H. Bennett, jr., C. H. Sexton, J. W. Lane, and one or two others not belonging to the service.

"The point to be determined by the investigation is whether the life-saving crew is responsible for the loss of life incident to the wreck. It is clearly established by the evidence that the fog was so dense as to be almost impenetrable the length of a ship. It is also undisputed that the patrol was properly kept. The fact that the ship was not discovered by Chasey on his return to the station shortly before midnight, and that Lloyd failed to see her as he passed the scene going north, may be accounted for by the remark of the mate, who, when asked if it was possible for the patrols to have seen the vessel earlier said, 'How could they? We did not shout for some time; the vessel being so good and strong, it was thought she would hold out until daylight.' That the life-saving crew made good time in reaching the scene when once notified, and that not a moment was lost in establishing communication after their arrival by means of the shot-line, is beyond doubt. When this was done, however, their future progress was stayed by the accidental breaking of the whip-line, a contingency which it was impossible to guard against. The current along shore, an old and powerful enemy of life-saving operations, had carried the line into entanglement with the floating wreckage, which before long cut it in twain. The boat was at hand on the beach, but it was simply impossible to render effective service with it, the sea being so high. If the rapidity with which the nearly new ship was broken in fragments was not ample evidence of the height and force of the surf, the statement of the mate that 'the sea came in like a wall and swept everything before it' is sufficiently conclusive. They had no alternative, and were compelled to await the clearing of the fog or for daylight.

"It was at about the time the people on shore were endeavoring

to get the first whip-line into shape for sending off the hawser, unconscious of the real condition of the wreck, that the boy was lost. The entire chain of circumstances surrounding the wreck were peculiar. Owing to the great draught of the vessel, she lay on the edge of the bar, estimated as at least three hundred yards from the bluff. Add to this the density of the fog and the tremendous sea rolling in and we can realize the difficulties to be overcome. The ship became a complete wreck, and her broken and twisted timbers fringed the beach for the distance of a mile within six hours after she struck. Under these conditions it is a wonder that more lives were not lost. In point of fact, the life-saving crew had all the survivors ashore and at the station within five hours from the time the alarm was given. At Long Branch the opinion was general that the life-saving crew did all that it was possible for them to do, and the survivors spoke enthusiastically in their praise. I therefore respectfully submit that no blame should rest upon the keeper and crew of Station No. 5 for the loss of life involved in this disaster, as it is clear that they worked energetically and well to save every person on board the ill-fated bark."

The foregoing narratives clearly show that in each case of fatality, the life-saving crews did their duty, and could not have done more. It may be remarked that the twelve lives thus unavoidably lost were just half the number of the preceding year.

DEATH OF LIEUTENANT WALTER WALTON.

The death annals of the Service for the year have a melancholy addition in the demise of one of the ablest and most devoted officers ever attached to the establishment, Lieutenant Walter Walton, of the Revenue Marine. At the time of his decease Lieutenant Walton was stationed at Milwaukee, Wisconsin, as assistant inspector of the Eleventh Life-Saving District. He had made the tour of his coast at the opening of navigation on the Lakes in the spring, carefully inspecting every station, as was his wont, and putting each of the crews through the manual of drill and exercise in the use of the wreck ordnance and life-saving apparatus, and he returned to his headquarters suffering with a severe cold contracted from exposure to the raw atmosphere of the wintry beaches while engaged upon this duty. His ailment unfortunately developed in malignity, and rapidly ended in a disease of the lungs, from which he died on the 18th of May, 1882.

It is regretted that materials are not available for a complete account of a career which the meager outlines that can be given show to have been of peculiar nobility and sterling worth. It is known that Lieutenant Walton was born in England, and when a lad between twelve and fifteen years of age he entered our merchant marine, taking service in a Maine vessel as a cabin-boy. He remained on board this ship for five years, conducting himself so well that he gained the position of second

officer. For two or three years after he left her he continued in the mercantile marine, when the war broke out, and he gallantly enlisted in the Union Army as a private, entering the cavalry arm of the regular service. He was soon promoted to the rank of sergeant, and for a short time served as an orderly to General McClellan. Later, availing himself of the privilege granted to seamen who were serving in the land forces, to enter the Navy, he was appointed as a master's mate, and before long won promotion to the grade of ensign. He served to the end of the war and for a couple of years thereafter, or until 1867, when he was honorably mustered out of the volunteer service. In November of that year he was commissioned as third lieutenant in the Revenue Marine. In 1870 he was promoted to be second lieutenant in that service, and in 1873 he rose to the grade of first lieutenant. In December, 1872, he had been detailed for duty in the Life-Saving Service, and he acted as assistant inspector on the coast of New Jersey until October, 1873. It was the period of the reorganization of the Service, from whence proceeded the years of its development and efficiency. There were then stations (such as they were) only on the coasts of Long Island and New Jersey—coasts which subsequently formed the Third and the Fourth Life-Saving Districts. The New Jersey stations shared in the general inchoate condition of the service at that time, and Lieutenant Walton did much toward bringing the newly-made district into noble working order. His conduct of affairs was so excellent that in 1873 he was transferred to act as inspector on the coast of North Carolina, where the Sixth Life-Saving District had been just created, and there was need of special energy and skill. His work here was even more radical and thorough than it had been on the coast of New Jersey. The practical organization of the district was effected by him, and he personally superintended the construction of a number of the stations. Certain conditions on this coast necessitated incessant thought and care, which Lieutenant Walton gave freely, and which bore fruit in a remarkable growth of efficiency in the life-saving operations upon this perilous shore. During an interim of this period—that is, for six months of the year 1876—he had charge of the striking life-saving exhibit on the borders of the lake at the Centennial Exposition in Philadelphia—an exhibit which was a prominent attraction amidst the carnival of objects composing this great international spectacle. To him was due the arrangement of the typical station (afterwards removed for service to Cape May) which formed a principal part of the life-saving exhibition. It is proper in this connection to say that his personal comeliness and dignity and the perfect and unvarying affability and courtesy with which he received the many thousands of visitors which the life-saving show allured, were strong factors in the favor with which it was received. At the close of the Exposition Lieutenant Walton returned to his arduous duties in the Sixth District,

where he remained until April, 1879, when he was transferred for duty as assistant inspector to the Eleventh Life-Saving District, coast of Lake Michigan, where, as already stated, he died on May 18, 1882.

At the time of his death he was about forty years of age. In his personal appearance there was an air of distinction which had its counterpart in the elevation and rectitude of his character. He was tall, elegantly formed, with a waist almost too narrow for his manly breadth of chest, straight features, brown eyes, dark flowing hair and beard, regular and handsome teeth, and the brunette complexion of the Norman Englishman, deepened by his life of almost constant exposure to the sun and wind. His demeanor was extremely courtly and affable, and the unmistakable dignity of his carriage was tempered by an equally evident simplicity and good nature. Probably, the prevailing impression he gave was of gentility, and this was heightened by the scrupulous neatness and sobriety with which he dressed. It was a trait that his handsome dark face flushed easily, most frequently with naïve pleasure at the appreciation of his action as an officer or a gentleman. In a word, a brave, able, gracious, kindly, simple, honorable, faithful human being—a pleasant grace in any social meeting; a trained judgment for every rising problem; an executive capacity that never failed; a bower-anchor for the lightest or the gravest trust; a friend to look to in any need; the magnet once, as he has now become the lasting regret, alike of acquaintance and comrade. Such, in brief, was Lieutenant Walter Walton, an English boy who became in the truest sense an American man, and in the service of the adopted country he loved found through all his life his sufficient ideal of honor in the glad and thorough discharge of simple duty. It seemed characteristic of him that the first years of his early manhood should be given, as an ardent volunteer, to that greater life-saving service, the improvised Army and Navy, which saved the life of the nation, and that nearly all the years following should have been devoted, with a zeal that savored of a similar choice, to the service which has for its aim the safety of the life of the seafarer. The officers in charge feel that no words could more than do justice to the ardor, the fidelity, the signal intelligence, the unremitting activity of all faculties and powers, which he brought to the performance of his district labors. His heart was thoroughly in his work, and if ever wearing thought and care in the tasks of guarding life imperiled by tempest in the surf upon the coast, constituted a sacrifice, such a sacrifice was made by this devoted and gallant officer. Little wonder why the Life-Saving Service has succeeded. The souls of such men as he have entered it, and it has become an incarnation.

To the glow such a life leaves there is a shadow. Lieutenant Walton was poor. He had only his little pay as an officer of the Revenue Marine, and dying suddenly, he left a widow and four children. It is sad to record that they are unprovided for, and the pathos of his loss

is deepened by the remembrance of the poverty bequeathed, like a fate, to his wife and little ones.

DEATH OF WILLIAM R. GARRISON, ESQ.

In the month following the decease of Lieutenant Walton, the Life-Saving Service suffered another loss in the death by a deplorable railroad accident of William R. Garrison, esq., who had succeeded to the position of president of the Board for the examination of life-saving appliances, made vacant by the resignation of R. B. Forbes, esq. Mr. Garrison was well known as the second son of Commodore C. K. Garrison, being, like his father, eminent through his connection with the celebrated steamship lines to California, New Orleans, Savannah, and Brazil. He had within three weeks of his death taken possession with his family of a new cottage he had built at Long Branch, and was accustomed to go up daily to New York on business; always, however, in the boat of which he was one of the owners. By a curious fatality, on this particular morning (June 29, 1882) he missed the boat, and for the first and only time took the train on the New Jersey Central Railroad. Within half an hour after starting the cars pitched over the bridge at Parker's Creek, the one in which he was seated overturning as it crashed down into the mud and water. The tram-way had been recently repaired, and one of the rails was imperfectly spiked down. This caused the track to spread, and was the means of throwing the train off the bridge. Among the victims of the disaster, several killed and a great number badly bruised and wounded, was Mr. Garrison. He died from concussion of the brain on the morning of July 1, the second day after the catastrophe.

He was born in 1834 and was therefore forty-eight years old at the time of his decease. The steamship property in which he and his father had become so celebrated, and through which large fortunes had been made for both, was disposed of several years ago. Of late years father and son had been largely interested in railroad and other corporative enterprises, and their high rank among the business magnates of the great metropolis is well known.

Mr. Garrison was prominent in social circles and a member of several of the leading New York clubs. He was popular through his remarkable intellectual and manly qualities, and much beloved by his friends. In personal appearance he was an example of physical strength and grace, being tall, straight, and broad shouldered. He left behind him a wife and four children—three daughters and a son. His connection with the Life-Saving Service as president of its Board, was of too recent date for more than record, but much was expected from his powerful good sense and executive ability in this capacity, and it is felt that the establishment has sustained a serious deprivation in losing the services which he had generously and with his usual public spirit placed gratuitously at its disposal.

EXAMINATION OF KEEPERS AND CREWS.

Shortly after the commencement of the active season in September, 1881, the keepers and crews of the stations upon the Atlantic coast were subjected to the usual physical and professional examination. It is needless, however, to note the results of this examination, inasmuch as the passage of the act of May 4, 1882, with its provisions for extending to men disabled in the line of duty, and to the widows and orphans of those who might perish in the same way, benefits somewhat analogous to those conferred by pension acts, made it practicable and desirable to institute another examination, involving stricter tests of physical soundness, which has resulted in not simply supplying the service with thoroughly sound men, but furnished the possible claimant for the benefits provided by the act with a certificate showing his physical condition at the time of his entrance upon duty, thereby sparing him the necessity of proving his prior condition in the event of his becoming entitled to those benefits, and at the same time protecting the Government from imposition by barring out claims which might be made on account of disabilities contracted at a time anterior to enlistment into the service, or to the enactment of the law. The following regulations, which were published with reference to this examination and to subsequent admission into the service, show the course pursued under the provisions of the act referred to:

1. The keepers and crews of life-saving and life-boat stations will be required to undergo a thorough physical examination by medical officers of the Marine Hospital Service detailed for the purpose, and certificates of such examination showing the exact physical condition of each man will be filed in the office of the General Superintendent.

2. Hereafter each keeper, before the enlistment of a person for the first time in his crew, will require him to produce a certificate of examination by a medical officer of the Marine Hospital Service, showing his exact physical condition, and that he is physically qualified to perform the duties of a surfman in the service, and will furnish him with a copy of Form 1800, containing a notice to the medical officer that he has been selected for enlistment if found qualified, and a request for his examination. This will secure him an examination, without expense, by the medical officer, who will also furnish him with the proper certificate, which the keeper will transmit to the General Superintendent, together with the report of the change in his crew on Form 1811.

3. No person will hereafter be originally enlisted into the service as a surfman who is over the age of forty-five years.

4. No person who is over the age of fifty-five years will be re-enlisted unless he produce a certificate from a medical officer of the Marine Hospital Service that he is found to be physically qualified to perform all the required duties.

5. Every keeper over the age of fifty-five years will be required annually, on or before the first day of September, to produce a certificate from a medical officer of the Marine Hospital Service that he is physically qualified to perform all the duties pertaining to his position.

6. Whenever any keeper or member of a crew becomes entitled to the benefit of the provisions of section 7 of the foregoing act, he should

make application to the General Superintendent for such benefit, reciting explicitly the manner in which his disability was incurred, and all the circumstances connected therewith. This statement should be sworn to and accompanied with the affidavits of witnesses testifying to the facts from personal knowledge, and a certificate from a medical officer of the Marine Hospital Service—if one is accessible, if not, from a physician in good standing—showing the nature of the disability in question, and the probability of its having been caused as stated in the application.

7. Upon the death of any member of a crew of a life-saving or life-boat station, by reason of perilous service or any wound or injury received or disease contracted in the Life-Saving Service in the line of duty, the keeper of the station to which such member belonged will forthwith notify the General Superintendent of the date, cause, manner, and all the circumstances of the event so far as is within his knowledge, and will also state whether he left a wife and children, and how many of the latter under sixteen years of age. In the case of the death of a keeper, the acting keeper will supply the above information.

Paragraphs 1 and 2 of the foregoing regulations do not apply to volunteer crews of life-boat stations enrolled under the authority of section 6 of the act of June 20, 1874, as they are not affected by the provisions of section 7 of the act herein published; nor does paragraph 1 apply to surfmen who have already undergone the required examination.

Upon the request of any claimant to the benefit of section 8, explicit instructions for procedure will be given.

ESTABLISHMENT OF STATIONS.

The station at Cape Fear, North Carolina (Sixth District), which was mentioned in the last annual report as in process of completion, has been finished and put in operation. The station at Bolinas Bay, California (Twelfth District), mentioned in the last report as then receiving its equipments, has likewise been put in operation.

Satisfactory proposals, which could not be obtained last year for the station at Peakéd Hill Bars, Cape Cod, Massachusetts (Second District), between Stations Nos. 7 and 8, and for the station at Muskeget Island, near Nantucket, in the same district, have been received since the date of the last report, and under them both stations have been completed and accepted.

Three new stations, authorized by the act of May 4, 1882, are in process of erection upon the North Carolina coast—one between Stations Nos. 17 and 18, one between Nos. 21 and 22, and one three miles southwest of Hatteras Inlet.

Sites have been selected and titles secured for the stations provided for by the same act, at Damariscove Island, Maine; Hunnewell's Beach, Maine; Cape Elizabeth, Maine; and Jerry's Point, near Portsmouth, New Hampshire.

A site has also been selected for the station which the act authorizes to be built between Cohasset and Scituate Harbor, but title has not yet been secured.

Initial steps have been taken for securing sites for the station author-

ized to be established at Lewes, Delaware, and for the five stations between Cape Henlopen and Cape Charles.

REBUILDING, REMOVAL, AND REPAIR OF STATIONS.

The old station at Deal Beach, New Jersey (No. 6, Fourth District), which was little more than a boat-house, and was extremely incommodious and had become dilapidated, is being replaced by a new station, meeting the full requirements of the service.

Station No. 34 (Third District), near Far Rockaway, Long Island, which was in danger from the encroachments of the sea, has been removed about two thousand feet to the westward, to a site generously donated to the Government for the purpose by Mr. Newbold Lawrence, of New York.

Station No. 36 (Fourth District), on the coast of New Jersey, has also been removed to another site, its safety being threatened by encroachments of the sea.

The march of town improvements made it necessary to also remove Station No. 5, in the same district.

Station No. 4, also in the Fourth District, has been extensively repaired and strengthened during the year.

Extensive repairs which were found to be needed on the five houses of refuge on the Florida coast are being made.

At Stations Nos. 1 and 2, First District (Maine), sheds have been constructed for the reception of apparatus and stores.

BOARD ON LIFE-SAVING APPLIANCES.

The practical solution of several problems connected with life-saving apparatus has had the effect of considerably lessening the number of plans, devices, and inventions of this nature presented for consideration, a result which has made it practicable to accomplish the desirable object of consolidating into a single organization the two Boards hitherto existing for the examination of such matters. This consolidation has been made, the newly created body being named the Board on Life-Saving Appliances, the composition of which is given below. The original president of this Board was William R. Garrison, esq., whose death by an unhappy accident, after a brief incumbency, has already been recorded. His place was filled by another citizen of distinction, Capt. Frank R. Baby, of New York City.

The following are the rules and regulations of the new Board, which are submitted for the information of persons interested:

RULES AND REGULATIONS OF THE BOARD ON LIFE-SAVING APPLIANCES.

MEMBERS OF THE BOARD.

1. FRANK R. BABY, *President*.
2. Capt. JAMES H. MERRYMAN, United States Revenue Marine, Inspector of Life-Saving Stations.
3. Capt. DAVID A. LYLE, Ordnance Department, United States Army.

4. Lient. THOMAS D. WALKER, United States Revenue Marine, Assistant Inspector of Life-Saving Stations, *Recorder*.
5. BENJAMIN C. SPARROW, Superintendent Second District, Life-Saving Service.
6. DAVID P. DOBBINS, Superintendent Ninth District, Life-Saving Service.
7. JOHN C. PATTERSON, Keeper Station No. 1, Fourth District, Life-Saving Service.

The devices, inventions, and apparatus submitted for the action of the Board will be divided into two general classes:

CLASS I.—*Wreck Ordnance*.

CLASS II.—*Miscellaneous Apparatus*.

* SUBJECTS TO BE CONSIDERED BY THE BOARD.

CLASS I.—*Wreck Ordnance*.

1. Mortars.
2. Guns and their appurtenances.
3. Rockets.
4. Line-carrying projectiles.
5. Shot-lines.
6. Faking-boxes, &c.
7. Powder and other ammunition.
8. Equipments, implements, &c., connected with wreck ordnance.

CLASS II.—*Miscellaneous Apparatus*.

1. Surf-boats.
2. Life-boats.
3. Life-rafts.
4. Life-cars.
5. Life-preservers.
6. Life-belts.
7. Patrol lanterns.
8. Signals.
9. Working-lines.
10. Blocks and tackles.
11. Sand-anchors.
12. Boat-wagons and devices for transportation of apparatus.
13. Such other matters as may be referred to the Board by the General Superintendent of the United States Life-Saving Service.

1. The Board will meet at the call of the president, for examination and discussion of such devices or apparatus as may be referred to it by the General Superintendent of the Life-Saving Service.

2. A majority of the Board shall constitute a quorum at any properly called meeting.

3. The province of the Board is to examine, test, and report upon such devices as may be referred to it by the General Superintendent; and it will not enter into protracted discussions with inventors or their agents as to the principles involved in methods of improvement in plans submitted, or how defects may be remedied.

4. In order to expedite the business of the Board, and prevent unnecessary expense to the Government, the president of the Board may, at his discretion, refer for special investigation any device, invention,

* Inventors will take notice that the duties of this Board do not include action upon any life-saving plans, devices, or inventions to be used or carried on shipboard, the examination of these being the province of the Board of Supervising Inspectors of Steam-Vessels.

or subject to a committee consisting of one or more members of the Board.

Such committee, after completion of the duties assigned to it, shall submit a written report to the full Board.

5. Due notice of meetings of the Board will be sent to persons whose inventions have been referred to it.

GENERAL REGULATIONS.

I. No person will be admitted to the meetings of the Board, to the experimental trials, or to the firing-ground, except the agents or inventors of the apparatus under discussion or trial.

II. All experiments or trials will be conducted under the immediate supervision of the Board, and by its employes alone. Inventors or exhibitors may have the privilege of displaying their apparatus, if desired, and of having the performance of the same noted in the record. Any gun, rocket, or device in which explosives are used, to be first fired with at least three rounds of the maximum charge by its exhibitor as a safety test, before submission to the Board.

III. The handling of the apparatus by agents or inventors, at any time after being submitted to the Board, is forbidden, except in the case of the display test above noted.

IV. Any apparatus, models, or plans which have been submitted to the Board and entered upon the record, will remain in the possession of the Board for such time as may be necessary for the completion of the examination, the trials, and the final report upon the same.

V. All persons desiring to submit devices or inventions for the action of the Board will be required to forward their applications to the General Superintendent in writing, embracing in detail the following points in the order named :

First. Name or designation of device to be submitted.

Second. Whether or not covered by caveat or letters patent.

Third. Nomenclature of each separate part of the device stated in list form, with reference letters corresponding to letters on accompanying drawing.

Fourth. Detailed description of device.

Fifth. Kinds and qualities of materials used.

Sixth. Dimensions of all parts.

Seventh. Weights of principal parts, and total weight of apparatus.

Eighth. Price at which device or apparatus will be furnished to the Government.

Ninth. Construction, stating method of manufacture or fabrication of each device in detail.

Tenth. Description of method of using the apparatus in actual service.

Eleventh. Describe action of projectiles and line when used.

Twelfth. Accurate drawings must accompany all applications. Full-sized drawings preferred, but drawings to scale of very large parts will be accepted.

Thirteenth. Claims of inventors or exhibitors for their devices will be set forth specifically in full, and in numerical order.

Fourteenth. Letters of transmittal, addressed to the General Superintendent of the Life-Saving Service, Treasury Department, Washington, D. C., will accompany above descriptions, drawings, &c.

VI. All apparatus connected with any device or invention will be delivered, at the expense of the agent or inventor of same, at such point

and at such time as the Board may direct, and returned at the expense of said agent or inventor when no longer required by the Board.

VII. It is to be understood that the Government is to incur no expense for ammunition or other articles used in the actual trials or tests of any apparatus presented for consideration.

There have been two meetings of the new Board, the proceedings of which are given in full in another part of this report.

THE WOMEN'S NATIONAL RELIEF ASSOCIATION.

The donations of clothing and cordial food to the life-saving stations have been continued during the year by the ladies of the Women's National Relief Association. Up to this date they have provided for sixty-five stations, and on several occasions of shipwreck the supplies have come into signal use for the benefit of the rescued. It appears that food and clothing from the donated boxes were given to those landed from the wreck of the brig Clara J. Adams, on the coast of Cape Cod, on September 19, 1881; the schooner Thomas J. Lancaster, on the coast of North Carolina, on October 5, 1881; the schooner J. H. M., on the coast of Long Island, on January 11, 1882; the yacht Florence Anna, on the coast of Lake Ontario, on August 17, 1882; the brig Albert Miller, on the coast of Lake Michigan, on August 30, 1882; the brig Thetis, on the coast of New Jersey, on March 16, 1882; the steamer Pliny, on the coast of New Jersey, on May 13, 1882; the schooner Mary Shields, on the coast of Cape Cod, on September 12, 1882; the schooner Fawn, on the coast of Cape Cod, on November 12, 1882; and a fishing boat containing seven persons, on the coast of Cape Cod, on November 14, 1882. In addition to the sixty-five stations supplied, the Association have notified the office of their readiness to send boxes of food and clothing to seventeen stations more, designations for which have accordingly been given. The benefit of these supplies can best be appreciated by those who have suffered for hours the drench of winter seas upon a wreck, and at last have reached the station with almost dying hearts. Next in appreciation to these should be the men and officers of the Service, whose constant contact with sufferers from the sea must make them realize the gracious nature of the relief the benevolence of the Association has afforded.

AWARDS OF MEDALS.

During the year medals have been awarded in four cases for heroic acts of life-saving.

The instance first in order was that of Mr. Isaac H. Grant, the keeper of Whitehead light-house, on the coast of Maine, who, on the 7th of August, 1881, was the hero of a remarkably prompt and gallant rescue. At about 8 o'clock in the morning of that day two men, named Thomas Wilson and John Lynch, mate and seaman on board the schooner Vicksburgh, of Bangor, Maine, went out in a yawl from their vessel, which was

at anchor in Seal Harbor. There was a dense fog, a strong breeze, with frequent squalls and a heavy sea, and at 9 o'clock, when the boat had been absent from the vessel an hour, and was about a mile to the eastward of Whitehead light-house, she suddenly capsized. The men contrived to get astride of the bottom, and clung to the keel, but were repeatedly torn off by the violent seas, although they as often managed to regain their position. Their cries for help were drowned by the roar of the waves, and the dense fog prevented alike their being seen from or seeing the shore. In this pitiable condition of suffering and struggle they continued for three hours, a strong current caused by the ebb-tide meanwhile bearing them out to sea, and the prospect of their being lost rapidly becoming imminent, when the fog fortunately lifted and disclosed them to the keeper of the light-house as they tossed, clinging to the yawl's bottom, far out on the rough waters. Keeper Grant acted at once with admirable forethought and energy. He dispatched his daughter with the alarm to the keeper of the life-saving station, about a mile away, and while the girl sped on her errand launched his own boat, with the aid of his son Frank, and put out to the rescue. So stormy was the sea after getting past the lee of the light-house that he was forced to throw over sail and ballast to keep the boat from swamping. He soon found that the nearest way to the perishing men was across a dangerous shoal, and time being precious, he risked this peril, and after a hazardous pull came up with the sufferers, who by this time were so helpless that they had to be lifted into the boat. They were in a frightful condition, exhausted, benumbed with cold, their trouser-legs chafed off at the knees by the abrasions of their struggles in keeping their hold of the boat's bottom, and the skin and flesh excoriated for spaces each as large as a man's hand, forming ghastly wounds. The keeper of the life-saving station soon came up in a boat better than that by which the rescue had been effected, and to this they were transferred and taken to the light-house, where their hurts were bandaged and every attention was bestowed upon them. The silver medal of the Life-Saving Service was bestowed upon Mr. Grant in recognition of his humane and gallant service upon this occasion.

A similar medal was awarded in 1879 to Mr. John H. Rapp, a wood and coal dealer at the foot of Rivington street, New York, in commemoration of two courageous rescues of persons from drowning. To this the gold medal of the Service has this year been added, Mr. Rapp having since the former award saved several persons from a watery grave. Of these, one was a lady who was being carried away by a strong undertow off the beach at Rockaway, in the summer of 1880, and was rescued by Mr. Rapp swimming to her, and after much difficulty and struggle, bringing her to land in a state of exhaustion. Incident to this feat was the rescue of his own wife, who had been bathing, and upon his return to the beach became almost insensible, in the agitation of the hour, and sinking down in the edge of the surf, was being swept

away by the undertow, when seized and landed by her husband. In February, 1881, Mr. Rapp saved a man named David Roach, who, in attempting to step on board a schooner, fell from the ice-covered string-piece of the dock alongside which the vessel lay, and became almost unconscious in the water from having severely gashed his head against the schooner's chain-plates as he fell. He was rescued by Mr. Rapp leaping into the water after him, and with great effort and struggle buoying him up against the edge of the dock, upon which, the tide being high, he succeeded, by desperate exertion, in rolling him. In June of the same year he rescued a boy from drowning in the East River, and another in the following July. Mr. Rapp is about thirty-eight years of age, and appears during his life-time to have saved from drowning about thirty persons. Besides the two medals of the Life-Saving Service, he holds the gold medal of the New York Benevolent Association, and also a gold medal from a private citizen whose child he saved from the water some years ago.

The silver medal of the Service was awarded to William Ross, a brave sailor belonging to the revenue cutter Perry, who, in June, 1877, leaped overboard into the Niagara River, at Buffalo, and saved from drowning a fellow-sailor, named Charles Bates, who had fallen from the gangway, and was in especial danger from not knowing how to swim.

A similar medal was awarded to Samuel S. Cox, a valiant member of the New York municipal police, who was proved to have saved from drowning at various times four persons. One was a man named Terence Cook, whom, in July, 1878, Officer Cox got from the East River by jumping in after him, at the risk of being crushed between a lighter and the dock, where the man was struggling. Another was a boy whom he pulled from the water in August, 1879, by clambering down upon a hawser between the dock and a vessel alongside. A third was another boy whom he rescued in May, 1881, as he was finally sinking, and the fourth was still another, whom Officer Cox saved in July of the same year by jumping into the East River after him.

CONCLUDING REMARKS.

It is cause for satisfaction that this is the first annual report of the Service which can dispense with appeals or recommendations to Congress, and the Service itself is to be congratulated that those heretofore made were so amply responded to at the last session as to leave little or nothing to be desired in the way of legislation for some time at least. The act of May 4, 1882, has placed the establishment in a better condition than it has ever been in before, completely dispelling the apprehensions held at the date of the last report, when the Service was threatened with disintegration on account of the meager compensation of its officers and crews, and when it began to seem impracticable to longer hold together the splendid body of men whose achievements had been of such high utility. The provisions of the law which secure ampler pay to the

keepers and crews, and afford some recompense to such as may become injured in the line of duty, and relief to their widows and orphans in case of death, have not only conserved the organization of the station corps, but greatly increased its morale, making the men feel that their services are appreciated, and inspiring them with fresh zeal and ardor in the discharge of their twofold duty on patrol and at wrecks. The increase of the pay of the district superintendents, although not as great as it should be, must have the effect of encouraging this group of worthy men, whose positions as governors of the several provinces of life-saving effort are of such incontestible gravity, arduousness, and responsibility. The establishment of new stations at points of danger to shipping, as recommended by the last report, and of others by the independent action of Congress, must also greatly promote the objects for which the Life-Saving Service was created, namely, the rescue of life imperiled by coast shipwreck, the saving of marine property from the hazards of the surf, and, incidentally, the protection of the revenue. And, finally, although deserving of primary and paramount mention in respect to its utility, the provision of the law which formally exempts the district officers and the station-keepers and crews from the control of politics, and gives irretrievably and beyond contest, the operations of life-saving into the hands of the ablest experts, must result in the greatest and most enduring good to the service. This end, maintained by personal effort and struggle, under great and often disheartening difficulties, season after season for ten years, is now secured beyond quarrel. The formation of the district service upon professional and moral qualification only, to the exclusion of political or other considerations, is at length a point guarded by statute.

The Life-Saving Service has now existed a full decade. Prior to 1871, like the cloud no bigger than a man's hand, it was an unconsidered trifle—its central habitat the corner of a kindred office at the seat of Government, its coast existence a thin line of weather-broken huts upon the beaches of Long Island and New Jersey—huts scantily furnished with poor equipments, and only one of every two provided with men. No beginning could well have seemed more unpromising; yet it was a beginning—the outset of an organized grapple with death in the surf for the lives of sea-farers; and nothing could have been more striking, in contrast with the frequent catastrophes which had previously disgraced our coast, than the success of that first year of rude but disciplined effort, with its unbroken record of rescues—not a single life lost by shipwreck during the twelvemonth, along the stretch of the two beaches which then made the narrow domain of the Service! From that initial success the institution spread, under the action of Congress, to the coasts of Rhode Island and Massachusetts; a couple of years later, to all the Atlantic beaches; by 1877 to the Lakes and the Pacific, until now nearly every point of danger to shipping upon our coast has been provided with stations, either actual or authorized, and the necessity for this form of protection

to life involved in peril by marine disaster, has the deepest and broadest recognition in thought and fact. Before 1871 there was probably no other arm of the public service so little held in esteem, as there was none more withered and feeble; and the failure of a measure in Congress in 1869 for manning the makeshift stations of that day and the bare success which attended the later effort of the same session to put crews at alternate stations, would seem to indicate that any vigorous endeavor made in Congress at that time would have sufficed to scatter all there was of a life-saving system to the four winds. To-day, in the face of the accomplished reductions in mortality by coast disaster, which stand to the credit of the life-saving agency, it is certain that there is no department of the public service a proposal to abolish which would meet with a more instant and undebating rejection; and the antithesis is indeed complete between that frail edifice of ten years ago, which one eloquent breath in Congress might have blown into the limbo of things that were and are not, and the stronghold the Service now constitutes, tenoned and mortised in the national conviction and bearing its immense trophy of deliverance, the accumulated triumphs of many a desperate struggle with surf and storm.

The reason for the change—for the grown prestige and deep-based foundation—is not far to seek. It is the success that has succeeded, and that is all. The skill of no limner could add such a blazon to the leaf as that which is formed by the brief statistics of the decade given on the seventeenth page of this report. That table is the record of over fourteen thousand people preserved from destruction; of more than three thousand brought to the stations drenched, frozen, and starving, nearly spent from the torture of the breakers, who found there succor in full measure; and of three-fifths of twenty-nine millions' worth of imperiled ships and cargoes recovered from the swallowing sea. The whole credit of this great and beneficent result—a result the more admirable because achieved within the little cycle of only ten years—is not claimed for the Life-Saving Service, but how large its share in it has been, its published records show and all men recognize, and it is equally shown and recognized that the large portion of the salvage, both of life and property, directly effected by the life-saving crews, involved in a multitude of instance the exercise of that homely and powerful heroism which fronts death and the peril of death without intervention and without blenching, and which makes the worker and his work dear to the heart of mankind. Not less recognized, and forming an element in the general appreciation, is the singular fact of the small mortality which shades the record of the ten years' rescues. It is remembered that the life-saving stations are deliberately placed, by elaborate selection, at the worst points that exist for shipping, at the places where liability to shipwreck is greatest, and where consequently there is the greatest possible hazard to seafarers, especially when tempest adds its own peculiar perils to the perils of the fatal bar or the bad surf and undertow; yet

it is under these worst conditions that fatality, through the efforts of the life-savers, has been so rare and deliverance so frequent. The sparseness of the loss marks the efficiency of the aid. It is a striking fact, established by careful statistics, that since 1876 the loss of life upon the coasts of the country has been reduced nearly seventy-five per cent. No means exist for comparison prior to that date, as it was not until then that statistics of this kind began to be collected under the authority of Congress, although if the traditions of frightful coast disaster could be accepted as a basis, the percentage of reduction in mortality from coast shipwreck could be put much greater. But it is certain that while in 1876, and before that, one person out of every twenty-nine persons on wrecked vessels was lost, there has been a constant decrease, until now there is but one lost out of every one hundred and thirteen. This is a reduction of very nearly seventy-five per cent., and it is referable almost entirely to the operations of the Life-Saving Service.

The subject is capable of an even more telling exhibit. It has been established in previous reports that during the twenty years preceding the organization of the Service, five hundred and twelve persons are known to have been lost on the coast of New Jersey and Long Island alone, although if full statistics could be had, the number would be known to be very much greater. Still, at the lowest obtainable figure, five hundred and twelve persons were lost on those two coasts alone within twenty years—that is to say, twenty-five persons per annum. In a contrast almost violent to this result, we can set the mortuary record of the past year of the establishment. Throughout the whole domain of the Life-Saving Service, covering the Atlantic, the Pacific, the Lakes, and the Gulf coast, there have been but twelve lives lost, less than half the number of fatalities known to have annually occurred in the little stretch of a couple of hundred miles, which makes the coast of Long Island and New Jersey—the actual number of those fatalities being probably twice as great as has come to knowledge. But whether twenty-five or seventy-five per annum perished from marine disaster within those narrow boundaries, the opposing record, gleaned from the whole amplitude of national coast now guarded by the life-saving stations, shows a death-list of only twelve!

These are among the triumphs of our life-saving system. Facts so eloquent are in themselves enough to account for the stability of the Service in general regard, and may fitly round the story of its first decade, and light the promise of the one to come and those that are to succeed.

SUPPLEMENT

TO

STATEMENT OF SERVICES OF LIFE-SAVING CREWS

DURING

FISCAL YEAR ENDING JUNE 30, 1881.

SUPPLEMENT TO STATEMENT
OF
SERVICES OF LIFE-SAVING CREWS
DURING
FISCAL YEAR ENDING JUNE 30, 1881.

[NOTE.—The following statements of services of crews were inadvertently omitted from the last annual report.]

January 30, 1881.—The steamer Bristol, belonging to the Great Western Steamship Company, of Bristol, England, 1,274 tons register, stranded on the coast of Long Island about three-quarters of a mile west of Shinnecock light-house, at 9.30 A. M., during a thick snow-storm. She had ten passengers and a crew of thirty-eight persons on board, and was bound from Bristol to New York, with a cargo of tin and coal, the total value of vessel and cargo being estimated at one hundred and eighty thousand dollars. The steamer grounded about four or five hundred yards from the beach. The patrol from Station No. 15, Third District, was on the alert, and discovered her almost as soon as she struck. He instantly hurried to his station, a mile and a quarter distant, and gave the alarm. The life-saving crew obeyed the call with alacrity, and were soon speeding in their surf-boat to the stranded vessel to proffer assistance. On boarding her they found the crew at work throwing cargo overboard in an attempt to lighten her. The captain expressed confidence that she would soon float, and the aid of the life-saving crew was therefore declined. He requested them, however, to convey a dispatch to the nearest telegraph office on the main-land acquainting the agents of the steamer at New York of the accident. By the time this request was complied with the force on the beach was augmented by the arrival of the crews of the adjacent stations, Nos. 14 and 16, who had hurried to the spot as soon as they learned of the accident. As the hours rolled by and the position of the steamer remained unchanged, notwithstanding the efforts of her crew, it was resolved to again board her. It was past noon, and the captain had by this time realized that he needed all the assistance he could get, and when the three life-saving crews pulled alongside their offer of aid was thankfully accepted. They therefore turned to with a will and helped carry out an anchor astern, with hawser attached, and by this means, after an hour or two of hard heaving, the steamer was successfully hauled from her dangerous position and enabled to proceed on her voyage to New York, where she arrived next day, apparently uninjured. It would be difficult to estimate the value of the service thus rendered, but there can be no doubt the life-saving crews present contributed very materially towards saving this valuable vessel and the greater portion of her cargo.

January 30.—The steamer St. Albans, of Grand Haven, Michigan, 436 tons register, while on a voyage from Milwaukee, Wisconsin, to Ludington, Michigan, with a cargo of flour and live-stock, encountered,

when about sixteen miles northeast of Milwaukee, immense fields of ice, which caused her to spring a leak and sink. The leak was discovered between 10 and 11 o'clock in the forenoon, and the vessel soon began to settle, but the crew and passengers—twenty-one of the former and six of the latter, making a total of twenty-seven souls—succeeded in pushing off in the boats, four in number, before the steamer went down. Fortunately the weather was not bad at the time of the disaster, the wind being light from the northwest and the sea smooth, although it was bleak enough to occasion severe discomfort to the unfortunate occupants of the open boats, who were, moreover, unable to make the land on account of the great masses of broken ice, which made progress well nigh impossible, and who were destined to spend nearly twenty-four hours on the lake in unavailing efforts to reach *terra firma*. To add to the misery of their situation, after a day and a night spent on the cold waters, the weather thickened by the morning of the 31st, and the wind blew from the northeast in a gale, with flurries of snow, while the boats still labored, involved in the floating ice-pack.

At about 8 o'clock that morning Keeper John Evenson, of Life-boat Station No. 15, Eleventh District (Milwaukee), was going up the beach from his house to the station, when two fishermen came running up to him with the news that there were boats with people in them out amidst the ice off North Point. Keeper Evenson at once hastened out onto the pier, and through the flurry of snow saw the boats himself, blackly dotting at unequal distances the drift of rough field and porridge ice. The season of navigation having closed, the station was not open for service, but the keeper lost no time in collecting from the gathering crowd a volunteer crew, and also got a couple of men to build fires at the station and get it in readiness to receive the people to be rescued. The surf-boat was then launched through the ice-pack, and, with the aid of the crowd dragged by a line out to the end of the pier. The nearest of the four boats was then drifting past the piers to the southward, some distance away, and the surf-boat began to work towards her, the men fighting the ice with oars and boat-hooks every inch of the way. Finally, after crunching along for about a hundred yards, the surf-boat got near enough for her crew to cast the heaving-line over the boat, in which were seen nine men and two women. The surf-boat was then headed back with the other in tow, and after a considerable struggle with the ice, got the convoy under the south pier, where the ice-cakes were piled up by the waters in a solid mass, the entrance to the piers being completely blockaded. The sufferers were then seized by the crew and passed up over this mass to the crowd upon the pier, who hurried them away to the life-boat station, where every attention possible was bestowed upon them. It was from the group thus rescued that the loss of the *St. Albans* was first learned.

The other three boats were meanwhile drifting amidst a vast field of broken ice northward of the piers, at a distance too great to be reached by the boat. As they were in the neighborhood of the breakwater at the foot of Buffalo street, the keeper thought that lines might be got to them by the wreck ordnance, and engaging a large box-sleigh with a double team he loaded it up with the Lyle gun, ammunition, and shot-lines, and drove with his volunteer crew to the breakwater, accompanied by Lieutenant Walter Walton, then an assistant inspector of the service. Upon arriving they found a densely packed crowd, through which they worked to the front with some difficulty with the wreck ordnance. They found, however, that the gun was not required, the police and citizens having already laid planks and firemen's ladders out over the heaped-up ice, and started out with a light clinker-built boat to one of the three boats

which had become wedged amidst the masses; but under the directions of Lieutenant Walton and the keeper, the end of a shot-line was passed out and secured to a line attached to the light boat, and the half-frozen people having been taken on board, the crowd on the breakwater hauled away, dragging the boat over the hummocked ice upwards of three hundred and fifty yards, until the sufferers were within reach, when they were taken up and carried away to the station. Considerable danger attended from first to last this method of rescue, as the field over which the persons rescued were borne was composed wholly of cakes of ice piled up in an improvised riprap by the rough action of the wind and sea, and on the way the keeper and several others, accidentally getting off the pathway of planks and ladders, broke through and went down to their knees, but managed to scramble up and regain the narrow causeway.

In the meantime another of the St. Albans' boats had contrived to get near shore, half a mile further north, in the vicinity of the Lake Shore Railroad depot, and the people on board had been helped to land by the police and citizens. The fourth and last boat had drifted south of the harbor entrance, and Keeper Evenson, under the direction of Lieutenant Walton, lost no time in mounting his sleigh and driving down to the vicinity, followed by Lieutenant Walton with the hook and ladder company. The keeper on arriving went out on the south pier and found that a party of brave volunteers, under the direction of Mr. Thomas Davidson, of the firm of Wolf & Davidson, shipwrights, had taken the station surf-boat, which the keeper had left upon the beach, and effected the rescue of the people in the last St. Albans' boat—four men and two women. One of the women was almost chilled to death, and was carried to the station on a fireman's short ladder, where every care was bestowed upon her, and a physician procured in attendance until she was beyond danger. Food, stimulants, and hot coffee were given freely to the rescued at the station, and all that was possible was done for their comfort. The four women saved left the next day for Ludington. Two of the men were kept at the station until the 2d of February—two days after the rescue—when one of them, a sailor, was sent to the Marine Hospital for treatment, and the other, an old Irishman, seventy years of age, and without a home, was taken to the Catholic Asylum.

The bare recital affords but a faint conception of the thrilling circumstance of this rescue, of which the wild gray day, the gale, the flurrying snow, the vast spread of rugged and groaning ice in which the imbedded boats with their miserable imperiled loads were drifting, the active and excited groups of the rescuers in their daring labor, and the throngs upon the piers and beach against the background of city buildings, were components. It was an incident of the affair that a boat containing three men lowered from the tug Nashua to aid in the rescue, became stuck in the floes and helplessly drifted past the harbor piers. They were finally rescued by three young men who put out in a light boat, attached to lines from the shore, operated by a part of the life-saving crew and some men from Wolf & Davidson's shipyard. Some property which had been taken into the St. Albans' boats in leaving the steamer was brought ashore by the life-saving crew, and turned over to the owners of the lost vessel. The life-saving work was effected without further damage than a pretty thorough scratching and scarring of the surf-boat by the jagged surface of the ice, and the loss of a boat-hook broken in fighting the floes.

The whole number of persons comprised in this fortunate rescue, including the three saved from the Nashua, was thirty. The official reports show that great praise is due to the police of Milwaukee, and also

to Hook and Ladder Company No. 1, commanded by Assistant Chief Engineer John T. Black, of the Milwaukee Fire Department, for their well-disciplined and energetic efforts upon this occasion. A hearty meed of praise is also due to a number of private citizens, who appeared as volunteers and toiled with the ardor and steady purpose of trained veterans. Chief among these may be mentioned Frank Otto, Frederick Jacho, and Ferdinand Jokum, who shot out in a light skiff through the dangerous push of ice and water to the relief of the men from the *Nashua*. Honorable mention is also due to Mathias Warras, Martin Scharping, Louis Block, Andrew Konke, John Rehorst, Theodore Eggers, James Semore, and Thomas J. Corbett, who, under the direction of Mr. Thomas Davidson, saved the last lot from the *St. Albans*. The men who served as volunteers under Lieutenant Walton and Keeper Evenson were John Peterson, Gus Riboldt, Frank Otto, William Eggers, John Eggers, Joseph Davidson, George Thompson, G. H. Thompson, George Duncan, and Thomas J. Dailey. To them, to Keeper Evenson, and to the people of Milwaukee generally the gratitude of the survivors of the wreck was directed in the subjoined card, which appeared in the *Republican* of that city shortly after the rescue:

"To the Editor of the Republican :

"We, the undersigned, survivors of the wreck of the propeller *St. Albans*, lost in Lake Michigan on Sunday, the 30th day of January last, desire to place upon record the sentiments of gratitude we entertain toward Capt. John Evenson, of the Milwaukee life-saving station, for the admirable manner in which he has treated us from the hour when he gallantly assisted in our rescue from the small boats, to which we had committed our lives, to the present time. His efforts looking to our comfort have been untiring, and we can never forget him, his brave volunteer crew, or the citizens who have so nobly seconded his endeavors in our behalf. We also owe a deep debt of gratitude to the good people of Milwaukee generally, for their genuine philanthropy manifested in many deeds for our welfare, and for the kindness we have experienced at their generous hands. And in behalf of the passengers and crew of the ill-fated vessel, we subscribe to this small acknowledgment.

"EDWARD CASEY, *Captain.*

"A. R. CALDER,

"First Engineer.

"FRANCIS MCQUILLAN,

"Steward.

"MILWAUKEE, *February 2, 1881.*"

June 9.—On this date Surfman John Kelly, of the Barnegat Inlet life-saving station (No. 17, Fourth District), rescued two men from the bottom of a capsized skiff in Barnegat Bay, about a mile and a quarter north of the station. The station at the time was closed for the summer season. It appears that Kelly, who had been out fishing, was seeking an anchorage for his boat during the northeasterly gale and rain-storm then prevailing, when he discovered the skiff bottom up, with two men clinging to it. Kelly, being well to windward, at once squared away, and by skillful maneuvering succeeded in picking the men up, and then, as quickly as possible, landed them at a place called Harvey Cedars, where, upon reaching the hotel, they were furnished with dry clothing and restoratives. They had been in the water some time when rescued, and would doubtless very soon have been drowned but for the prompt action of Surfman Kelly.

SERVICES OF LIFE-SAVING CREWS

DURING

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DURING

FISCAL YEAR ENDING JUNE 30, 1882.

July 1, 1881.—At about 6 o'clock in the morning the schooner Eliza Gerlach, of Cleveland, carrying a crew of seven men bound, from Buffalo, New York, to Kenosha, Wisconsin, with a cargo of coal, struck on the bar at the entrance to the harbor of the latter place while proceeding in charge of a tug. The crew of the life-saving station (No. 16, Eleventh District) went quickly to work with their boat and ran the necessary lines from the schooner to the pier, and after heaving steadily upon the capstan for several hours they succeeded in getting her safely into the harbor without damage.

July 2.—At 5 o'clock in the evening the schooner William Gilbert, bound in to Big Sandy Creek, Lake Ontario, New York, arrived off that place and made signal for a pilot to take her in over the bar. As the water in the creek was very shallow at the time and it would be impossible for the vessel to get in without striking upon the rocks in the channel, the crew of Station No. 1, Ninth District, at the mouth of the creek, went out and warned the captain against attempting to run in, thereby preventing accident and causing the vessel to bear up for another port of discharge in the vicinity.

July 3.—While a number of persons were standing on the pier at Sea Breeze, Lake Ontario, about four miles east of Charlotte, New York, the railing against which they leaned gave way, and Henry Williams, of Rochester, was precipitated into the water. One of the surfmen of Station No. 4, Ninth District (Charlotte, New York), happened to be present at the time and immediately plunged into the lake and rescued him from drowning.

July 4.—At half past four in the afternoon the lookout at Station No. 11, Eleventh District (Chicago, Illinois), observed a small boat with one man in it capsize on Lake Michigan, off the Exposition Building, about a mile south of the station. The life-saving crew put off with all the haste possible to the rescue, but before they could reach the spot the man had been picked up by a passing boat and was safe. They righted the boat, however, and bailed it out and towed it ashore all right.

July 4.—At 1 o'clock in the morning, as one of the surfmen of Station No. 16, Eleventh District (Sheboygan, Wisconsin), was patrolling his beat to the northward of the station, he saw a man stumble off the steamboat wharf into the river. Hastening to the spot he found the height of the wharf too great for him to reach the man by hand, so seizing a pole lying near he extended it to him, and was about to attempt to haul him out when assistance in the person of his comrade on the south patrol arrived. The splash in the water had attracted the attention of the patrolman on the opposite bank, and realizing the situation at once he threw off a portion of his clothing and jumped in and swam across, reaching the spot in time to assist his comrade on the wharf in getting the man safely landed. The latter gave his name as Peter Graves, and

stated that he had stumbled overboard in the darkness while walking down the wharf to meet his daughter, whom he expected by the incoming steamer. But for the timely and effective aid of the two surfmen he would in all probability have drowned.

July 5.—At 5 o'clock in the afternoon the four-masted barge J. H. Rutter, 1,224 tons, of Detroit, with a crew of five men and one passenger, and loaded with iron ore from Escanaba, Michigan, while entering the harbor of Fairport, Ohio, in tow of the tug Urania, grounded on the bar about three hundred feet outside the harbor piers. The surf-boat of Station No. 7, Ninth District, about six hundred yards distant, was immediately launched, and the life-saving crew proceeded to assist her by running lines and heaving her off, after which she was towed safely into port.

July 5.—On this date, at 10 o'clock in the morning, during the prevalence of a thick fog, the crew of Station No. 10, Tenth District (Lake Superior), discovered the schooner Prince Alfred heading directly for the beach and in danger of stranding. By timely signals they succeeded in warning her off, the vessel quickly going about and standing off shore.

July 9.—The schooner Ringgold, of and from Oswego, with a crew of two men and loaded with coal for Big Sandy Creek, Lake Ontario, New York, while making the last-named place, at 10 o'clock P. M., was unable to find the channel buoys at the mouth of the creek on account of the darkness of the night and the smoky condition of the atmosphere. Upon blowing a horn as a signal for assistance it was heard by the lookout at Station No. 1, Ninth District, and the fact reported to the keeper. A beacon-fire was at once kindled on the shore as a guide to the entrance, and then the keeper with two of his crew launched the station dingey, and pulled out to the vessel to point out the location of the buoys. By the aid thus rendered the schooner was nearing the third buoy, when the keeper noticed that she was also drifting toward the rocks to leeward, so jumping on board he assisted in working her to windward, and then piloted her in and made her fast for the night.

July 10.—At 5 o'clock in the afternoon, during a violent storm of wind and rain, the steam-yacht John Bueg, of Rochester, New York, having on board a party of twelve excursionists, consisting of two men, two women, and eight children, was driven ashore one mile and a half east of the harbor piers at Charlotte, Lake Ontario, New York. She was discovered by a surfman of Station No. 4, Ninth District, who waded out to her in the surf, carried the children in his arms, and then assisted the women to the shore. The yacht was subsequently towed off by a steamer, having sustained but slight damage.

July 11.—At 2 o'clock in the morning the schooner Sunrise, of Chicago, 439 tons, from Buffalo, New York, to Erie, Pennsylvania, with a crew of nine persons, mistook the lights in attempting to make port, and got aground on the point one mile north of Station No. 6, Ninth District, at Erie. The patrolman discovered her immediately and reported at the station, and at 2.30 A. M. the surf-boat pulled alongside. The captain of the Sunrise availed himself of the services of the life-saving crew to convey him in the surf-boat to Erie, to procure a tug. The life-saving crew returned in tow of the tug to the stranded schooner, ran her hawser to the tug, and then remained on board until she was pulled off, at about 4 o'clock.

July 11.—The tug Lizzie, of Saint Catharine's, Ontario, with the dredge-boat Canada No. 4 in tow, from Fort William, Lake Superior, for Saint Catharine's, grounded about one-eighth of a mile north of Thunder Bay

Island, Lake Huron, at half-past three in the morning. There were five men on board each vessel. The accident was discovered by the patrolman from Station No. 6, Tenth District, on the island, but before he could reach the station to report, the steamer's alarm-whistle was heard by the keeper, who at once aroused the other members of the crew and ordered the boat out. The station is near the southerly end of the island and distant about a mile and a half from where the vessels lay. Just as the life-saving crew sighted the steamer and her tow, as their boat rounded the island, they also saw the patrolman running to meet them. It took but a short time to pull in to the beach and pick him up, and they were soon under way again, reaching the steamer in half an hour after the discovery of the accident. Both vessels were hard and fast in an extremely dangerous position in case the weather should set in bad. Fortunately the wind was light and the water smooth. The life-saving crew carried out an anchor and endeavored to heave the steamer off, but without success; so, at the request of her captain, the keeper took his station supply-boat (sail) and proceeded to Alpena, Michigan, eleven or twelve miles distant, for a tug, his crew remaining by the steamer with their life-boat to be ready for any emergency. The trip was expeditiously made, and in five hours from the time of starting he had the tug E. H. Miller, of Alpena, alongside. The station crew lost no time in running the necessary lines, and the Miller soon pulled the Lizzie afloat. The latter then proceeded to haul the dredge off, but before it could be done the tow-line fouled her propeller-wheel, and thus disabled she drifted ashore again. Seeing what had happened, the Miller again steamed alongside and hauled the Lizzie afloat, and then rendered a like service to the dredge, after which she towed them both around the island, in front of the station, where they anchored, and disentangled the line from the Lizzie's propeller and made necessary repairs. The services of the Miller being no longer required she returned to Alpena, and the station-keeper piloted the Lizzie and her tow to a safe anchorage between Thunder Bay and Sugar Islands, to await a favorable opportunity to proceed on their voyage. The captain of the Lizzie was very thankful for the aid rendered by the life-saving crew, and freely expressed the opinion that they were the means of saving his property, valued at nine thousand dollars, as if it had not been floated before the wind freshened it would have all been lost.

July 11.—At a little after 2 o'clock in the morning the steamer Delaware, of Erie, Pennsylvania, 1,732 tons register, carrying a crew of twenty-five persons all told, bound from Chicago to Milwaukee and thence to Erie, with a cargo of corn, stranded on Racine reef, about two and a half miles from the harbor of Racine, Wisconsin, the accident being occasioned by the thick, rainy weather then prevailing on Lake Michigan. The cause which led to the mishap also prevented her from being sighted from the Racine life-saving station (No. 14, Eleventh District) until daylight, when the life-boat was at once manned and the crew went off to her assistance. Upon arrival on board it was learned that the captain had sounded no distress signal when the vessel struck, but that the first officer had been dispatched ashore two and a half miles south of the harbor, in one of the boats, to telegraph to Milwaukee for the assistance of steam-tugs. The captain very gladly accepted the keeper's offer to stay by him and aid in getting the steamer off. A few hours later a Racine harbor tug came out with a gang of men to lighten the vessel by discharging cargo. The life-saving crew worked hard all that day and night and until the following afternoon (July 12), with the exception of a short intermission to take proper care of their boat, the

removal of cargo continuing until noon (12th), when three powerful tugs arrived from Milwaukee, twenty-five miles distant. With their aid and that of the Racine tug the Delaware was hauled safely afloat at about 2 o'clock, and taken at once to Milwaukee for repairs, having lain on the reef for about thirty-six hours.

July 12.—In the excitement and confusion existing on board the many small craft in the vicinity of the steamer Delaware, above named, at the time she was floated off, a boat lying near by was stove and capsized, and its occupants, two men residing at Racine, thrown into the water. The life-saving crew went quickly to their assistance and rescued them, and afterwards took their boat in tow and conveyed them back into the harbor, the men reaching home not much the worse for their ducking.

July 13.—At about midnight the schooner Sunbeam, of Tuckerton, New Jersey, with a crew of three men, and a cargo of grain, lying at anchor off Cape May steamboat landing, Delaware Bay, parted her chain during a heavy squall and went ashore about one mile northwest of Station No. 40, Fourth District, New Jersey. She was discovered the next morning, July 14, by the keeper of the station, who mustered his crew (the station being closed for the summer) and went to her assistance. On account of the low tide the life-saving crew could do nothing until evening, when, with lines procured from Relief Station, No. 41, near by, they planted her anchors off-shore, and, after several hours spent in continuous effort, succeeded in heaving her off, in good condition, at 12.30 A. M., July 15.

July 13.—A. D. Marshall, of Lincoln, Nebraska, aged thirty-seven years, visiting Kenosha, Wisconsin, while attempting to get into a small row-boat from the dock at that place, fell into the river, and would have drowned but for the timely arrival of Surfman No. 2 of Station No. 13, Eleventh District, Lake Michigan, who jumped into the river and sustained him until assistance arrived.

July 14.—An intoxicated man fell overboard from a skiff, at Charlotte, Lake Ontario, New York. A surfman of Station No. 4, Ninth District, witnessed the accident and, hastening to the spot in a skiff, rescued him from drowning.

July 15.—A party of gentlemen from Rochester went in bathing, in the afternoon, at Charlotte, Lake Ontario, New York. Soon after entering the water one of the party, Mr. Henry C. Hulbert, struck out from the others with the intention of swimming across the Genesee River, which flows into the lake at that point. Being known to his friends as an expert swimmer, no anxiety was felt on his account, but when within twenty-five feet of the opposite shore he gave out and called for help. Before assistance could reach him, however, he had gone down. Word was at once sent to Station No. 4, Ninth District, half a mile distant, and the keeper with two of his crew proceeded to search for the body. When found it had been under water an hour and a half, and life was extinct. An attempt at resuscitation was made by the life-saving crew, but without avail.

July 16.—At 11 o'clock in the forenoon a fishing-boat with three men in it capsized on Lake Michigan, about ten miles north of the harbor of Saint Joseph. Fortunately the schooner Lizzie Doak, of that port, was passing at the time, bound in, and she at once picked the men up and took the boat in tow. Upon the schooner's arrival in the harbor the life-saving crew (Station No. 10, Eleventh District) went off and helped right the boat, and then bailed it out and put it in complete order again.

July 17.—The sloop-yacht Laura May, of Charlotte, New York, with two men, capsized on Lake Ontario, through the mismanagement of her

crew, about a quarter of a mile east of the Charlotte piers and half a mile from shore. The accident was discovered by one of the surfmen of Station No. 4, Ninth District, who, with a comrade, went out to the rescue in the station dingey. They found the men clinging to the yacht, took them into the dingey and safe to shore. The yacht was subsequently towed to leeward of the piers, where she was righted, bailed out, and then taken into the harbor.

July 17.—The keeper and one of the surfmen of Station No. 6, Tenth District, Thunder Bay Island, Lake Huron, were on the way in the station supply-boat to Alpena, Michigan, for provisions. At 2 in the afternoon, when about in the middle of Thunder Bay, and three miles distant from the city, they discovered two men in a skiff, which was half full of water, unmanageable, and driving rapidly out into the lake before the strong northwest wind prevailing at the time. The station-boat went to their relief, took the men on board and the skiff in tow, and proceeded to Alpena. It was a timely rescue, as one of the skiff's oars was broken, and the men were vainly endeavoring to make the land with the one remaining oar and a piece of board. Their efforts had failed thus far, and the situation was hourly becoming worse. They had been adrift since 7 in the morning, and when picked up were well-nigh exhausted and badly frightened. As the wind increased to a gale by nightfall, and continued to blow hard all the next day, there can be but little doubt that the station relief which came so opportunely saved the lives of the two men.

July 21.—As Mr. S. W. Robinson, of Cleveland, Ohio, was out for an evening pull in his canoe on the Cuyahoga River the swell from passing steamers capsized the canoe and threw him into the water. Fortunately it was not far from the life-saving station (No. 8, Ninth District), and the accident was seen by the lookout. The keeper at once jumped into the station skiff with one of his crew and pulled to Mr. Robinson's assistance, taking him in the skiff to the station, where he was furnished with dry clothing, and thus enabled to proceed again in the canoe, which the station crew had bailed out and placed in proper order for him.

July 22.—A young man named Joseph Ryan, of Buffalo, New York, while bathing off the light-house pier at that place, was seized with cramps and sunk. One of the surfmen belonging to Station No. 5, Ninth District, about a quarter of a mile distant, was on duty at the pier and saw him disappear. Without a moment's hesitation, he plunged into the water and succeeded in grasping Ryan by the hair and brought him safely to the shore. The man's death was inevitable but for the timely aid thus rendered.

July 22.—At 2 P. M. the captain of the steam-tug John Gregory, of Green Bay, Wisconsin, requested help from the keeper of Station No. 14 (Racine), Eleventh District, Lake Michigan, to search for three empty scows which had broken loose from his vessel during the gale of the night previous, on the trip from Chicago to Sturgeon Bay, Wisconsin. The life-boat was immediately launched and manned, and in tow of the Gregory went out through a heavy swell and discovered the scows stranded on the beach seven miles north of the station. Notwithstanding an exceedingly heavy surf, the life-saving crew managed to board the scows, taking with them a small line attached to the steamer's hawser, which they hauled in and made fast. When this was accomplished they signaled the tug, and she pulled the scows off. During this operation the hawser accidentally fouled the steamer's propeller-wheel, and it was only after considerable difficulty and risk that the life-saving

crew succeeded in clearing it. Before resuming the voyage the Gregory towed the scows into Racine; in order to pump one of them out, it having filled with water while in the surf.

July 24.—At 4 o'clock in the afternoon one Henry Munzer, of Buffalo, New York, while bathing in the lake at that place, was seized with cramps and was in imminent danger of drowning. The surfman from Station No. 5, Ninth District, on duty at the pier, saw the man's peril, and, jumping into the water, swam to his assistance and succeeded in rescuing him.

July 24.—Two of the crew of Station No. 11, Eleventh District (Chicago, Illinois), put off in a sail-boat and rescued a man named Van Inwagen, who had been overtaken by a severe squall while out in a skiff for an afternoon sail in the harbor. The squall had disabled the boat and it was half full of water, Mr. Van Inwagen being almost exhausted when picked up from his efforts to keep the craft from capsizing. After receiving every necessary attention at the station, the man was sufficiently recovered in a few hours to leave for home, his skiff in the meantime having been put in good order again. He had a fortunate escape, for when rescued he was fast drifting out into the lake, and he could not have kept afloat much longer in the condition the boat was in.

July 24.—During the same squall which came near resulting disastrously to Mr. Van Inwagen, as before stated, the other members of the crew of the Chicago station also rendered good service. It seems that the mate of the schooner J. O. Moss had rigged the yawl belonging to that vessel and gone out into the basin for a sail. The squall overtook him and capsized the boat, the mate, named Robinson, being thrown into the water. The accident was seen from the station, and the men at once put off in the surf-boat to Mr. Robinson's assistance. Before they could reach him, however, he was picked up by three men who were passing in a small skiff belonging to the yacht Anon. The danger was not over by any means, for the skiff was too small to sustain the increased load, and rapidly filled with water, and would have sunk under the weight of the four men but for the timely presence of the life-saving crew, who took all four of them into the surf-boat, and towed the skiff ashore, the crew recovering the capsized yawl later and taking it alongside the schooner where it belonged.

July 24.—At 4 o'clock in the afternoon a westerly squall passed over the city and harbor of Milwaukee, Wisconsin, and shortly afterwards an alarm reached the life-saving station (No. 15, Eleventh District) that a pleasure-boat had capsized out on the lake, about a mile and a half north of the piers. The crew responded quickly to the call for aid, but, upon pulling some distance in the direction indicated, they met the capsized boat coming in, in tow of another craft, and its occupants safe. They learned, however, from the rescuing boat that there was another boat, with five boys in it, well off-shore to the southward and eastward. They accordingly started in search and found the boat about two miles out, with the boys, fortunately, all right. The boat was at once taken in tow, but before reaching the harbor a steam-tug came along, bound in, and assisted both the surf-boat and her charge safely inside before nightfall.

July 25.—In the afternoon an open sail-boat belonging to Eli Stevens, of Port Ontario, Lake Ontario, New York, having on board the owner, his wife, and two children, was running from the above-named place to Little Salmon Creek, when she encountered a heavy southwesterly squall, which carried away her canvas, and in this condition she was drifting rapidly out into the lake when overhauled and assisted

to port by the crew of Station No. 2, Ninth District (Little Salmon Creek). It appears that the lookout at the station observed the boat approaching when yet three miles off, and before the squall had reached her. Realizing the danger to which she would be exposed when struck by the squall, he reported the facts to the keeper, and the surf-boat was immediately launched and pulled to her assistance. On the way out, the storm burst upon the lake with all its fury, and the two boats were temporarily hidden from each other. It was during this time that the accident occurred. As the squall passed away to the northward Mr. Stevens's boat was again sighted by the life-saving crew, drifting out into the lake in an unmanageable condition. They were soon alongside, and, after transferring the people to the surf-boat, took the disabled boat in tow and proceeded with her into Little Salmon Creek, reaching their station shortly afterwards.

July 25.—A few hours later (9.30 P. M.), the two patrolmen from the Sheboygan Station (No. 16, Eleventh District) heard the faint sound of a steamer's whistle away to the northeast, as though in distress. It was at once reported at the station, and the life-saving crew put off as quickly as possible in the direction of the sound. The night was very dark, and after pulling out into the lake some three or four miles, and seeing nothing—the faintness of the signals indicating that the vessel was still a long distance off—they returned to the harbor and obtained the assistance of a harbor tug. Upon going out the second time they found the vessel, which proved to be the steamer John Gregory, of Milwaukee, at half past one in the morning (26th), ten or twelve miles offshore, in charge of a tug, which had just reached her and taken her in tow. The captain of the Gregory reported the vessel disabled by the breaking down of her machinery, and, while thanking the life-saving crew for responding so promptly to his call for assistance, informed them that with the aid of the tug first to arrive he could now reach port without trouble, and their services would therefore not be required. Upon thus finding they could be of no assistance, the boat was put about and the life-saving crew returned to their station, arriving there at half-past three, having been out on the lake about six hours.

July 29.—Telesford St. Peter, jr., of Chicago, Illinois, aged six years, son of the keeper of Station No. 11, Eleventh District, Lake Michigan, accidentally fell overboard from a row-boat in Chicago Harbor. He clung to the gunwale of the boat until assistance arrived from the station and was rescued without injury.

July 29.—At Kenosha, Wisconsin, Joseph Smith, aged nine years, while amusing himself in a skiff at the end of the harbor piers, was capsized, and would have drowned but for the timely assistance of a surfman of Station No. 13, Eleventh District, Lake Michigan, who pulled out in a row-boat and rescued him.

July 30.—At noon the day following the rescue of Joseph Smith the crew of the same station discovered a hat floating in the river near the Main street bridge. Recognizing it as belonging to a boy named James Clare, residing in the vicinity of the station, it was surmised that he had fallen into the water. They at once commenced dragging the river-bed, and after an hour's search, succeeded in grappling the body. Immediate efforts for his resuscitation were made, but it was too late, as life was extinct.

August 2.—The schooner Watchful, of Providence, Rhode Island, 139 tons burden, with a crew of four men, while proceeding in ballast from Saco to Tennant's Harbor, Maine, encountered thick, foggy weather, and before her crew were aware of it she was among the breakers on

Brown's Ledges, about three hundred yards to the westward of Station No. 5, First District, on White Head Island. The anchor was instantly let go to prevent her going on the rocks. It was then about 4 o'clock in the afternoon. The station was closed for the season, but the keeper was on hand with one of his crew, and fortunately heard the rattle of the chain as the anchor dropped under foot. Hurrying along the beach in the direction of the sound, he soon discovered the schooner, through the fog, right in the midst of dangerous breakers. Upon hailing the vessel, he was requested by the captain to come off to his assistance. Prompt action was necessary, as the falling tide would, in half an hour, leave her on the rocks. He could do but little with one man, and there was no time to go in quest of the rest of his crew. Three yachtsmen, however, who were visiting the island, volunteered their aid, and helped to man the boat and board the schooner. Under the direction of the keeper, the anchor was quickly weighed, and the vessel skillfully worked clear of the rocks into deep water, where, as the wind died out, she anchored for the night. The vessel being safe, the party returned ashore and housed the boat, after which the keeper accompanied by one of the regular members of his crew, who arrived later in a small skiff of his own, went on board again and remained until 4 the next morning, when they assisted in getting her under way and then left her to pursue her voyage uninjured. But for the prompt aid afforded the schooner she would no doubt have sustained serious loss, and perhaps become a total wreck.

August 2.—At about 8 o'clock in the morning, during the prevalence of a dense fog upon Lake Huron, the crew of Station No 2, Tenth District (Point aux Barques, Michigan), heard the signal-whistle of a steamer apparently to the northeast of the station, the sharpness of the sound indicating a call for assistance. The life-saving crew put off at once in their boat, and after pulling about two miles they found the steamer City of Concord, of Port Huron, with the schooner L. L. Lamb, of the same port, in tow, bound to Port Hope. The captain of the steamer, in explanation of his signals, stated that he was uncertain of his position on account of the fog, and desired to know the bearing and distance of his port of destination. The necessary information was at once given by the keeper, and the two vessels shaped their course accordingly, and were thus enabled to reach Port Hope soon afterwards without further detention.

August 3.—The keeper of Station No. 5, First District, had scarcely got ashore, after seeing the Watchful safely off on her voyage, when one of the men who assisted in relieving that vessel discovered, through a rift in the fog, a schooner anchored near the South Breakers, a dangerous ledge of rocks about one mile southeast from the station, with a signal of distress flying. Notifying the keeper, the two men boarded her in a skiff and found her to be the John S. Ingraham, 293 tons, of Rockland, Maine, whither she was bound, in ballast, from Boston, and that she was short-handed through sickness among the crew, and therefore unable to work up the bay to her port of destination. All told, there were eight on board, three being passengers, one of the latter a woman. The wind being very light, the keeper advised the captain to remain where he was until a breeze sprang up, and that then he would bring assistance. He also arranged with him what signals should be made in case of urgent need, and then returned ashore to notify such of the station crew as were within reach to be in readiness for a call as soon as there was wind enough to move the vessel. The weather remained calm, however, all day, and nothing could be done. At 11 A. M. next

day (August 4), they were favored with a breeze, when the keeper again boarded the schooner with three of his men, assisted in getting her under way, and piloted her to a safe anchorage in Seal Harbor, below Rockland.

August 3.—On this date the crew of Station No. 9, Ninth District (Marblehead Point, Ohio), dragged for and recovered the body of a man named Joseph Light, who had been drowned a day or two previous at Lake Side.

August 5.—At about 10 o'clock in the forenoon, William Eggers and Edward Krause, of Two Rivers, Wisconsin, left that place in a small skiff, bound to Manitowoc, and when some miles down the coast were overtaken by a furious squall, which crippled the boat so as to render it unmanageable. For a time the wind was from the eastward and the boat drifted towards the land, but when it was within two hundred feet of the beach the wind suddenly shifted into the northwest, and the situation changed. The prospect of being blown out into the lake seems to have made young Krause desperate, for he sprang overboard with the intention of swimming ashore, but the poor fellow's strength gave out and he was drowned, his companion being powerless to help him. Eggers, completely terrified at the sad fate of Krause, drifted about for some time after the accident, and finally succeeded in reaching the shore. He at once made the best of his way back to Two Rivers, and reported Krause's death at the life-saving station (No. 17, Eleventh District). The life-saving crew responded promptly to his request for aid in searching for the body and repaired to the spot in two boats, taking with them a seine for sweeping the lake, Eggers accompanying them as a guide. The search was prosecuted with vigor the remainder of that day and until the afternoon of the next (5th), but without success, it becoming apparent that other methods must be resorted to. Accordingly on Sunday afternoon (7th) the keeper prepared a long grappling-line and renewed the search, being assisted by some of his crew and a party of volunteers. After sweeping the bottom for some hours they found the body just before midnight, and it was at once conveyed by the keeper to Two Rivers and delivered to the sorrowing relatives.

August 6.—The schooner Tillie E., of Provincetown, Massachusetts, 93 tons, with a crew of three men and laden with coal from Weehawken for Provincetown, sprung a leak when about five miles south of Point Judith. The weather was foggy, with a light southwesterly breeze. Seeing she must sink before long, the captain, in order to save the lives of himself and crew, ran her ashore half a mile west of Station No. 2, Third District (Point Judith, Rhode Island). She grounded at 8 A. M., but as the station was closed for the season and the crew disbanded, her position was not discovered by any person on shore until 11 o'clock, when a member of the life-saving crew happened in the vicinity, and, seeing the schooner, he at once hurried to the point and telegraphed the fact to the station-keeper at Narragansett Pier, five or six miles distant. The keeper, in company with another member of his crew, drove in haste to the station, and as the sea was smooth they launched a fishing-skiff and pulled down the shore to the wreck, reaching her in an hour after receiving the dispatch. Finding her deserted, they landed on the beach and found her crew safe, in the company of the surfman who had reported her. The latter, after telegraphing to the keeper, had returned, and on meeting the schooner's crew, they having come ashore in their own boat, he assisted in landing their effects. The keeper's offer of the hospitalities of the station was gladly accepted, and they remained there five days. When they were ready to leave,

he furnished them with a letter to the railroad officials at Narragansett Pier, by means of which they obtained free transportation to their homes, they being destitute of funds. Their vessel became a total wreck, although part of the cargo was saved.

August 7.—Two men belonging to the schooner Vicksburg, of Bangor, lying at anchor in Seal Harbor, between White Head and Spruce Head Islands, Maine, who went out from the vessel in a boat and were capsized, were rescued by the keeper of the White Head Island Light-House, aided by the keeper of Life-Saving Station No. 5, First District. For particulars of this rescue see page 43, under caption of "Awards of Medals."

August 7.—At about 8 P. M., at Racine, Wisconsin, during the prevalence of a fresh northeasterly gale, the crew of Station No. 14, Eleventh District, Lake Michigan, observed a small schooner endeavoring to make the harbor. As she needed the services of a tug and there was none at hand, the life-saving crew took her line and succeeded in hauling her from the end of the north pier safely into the river.

August 7.—At the same station (No. 14, Eleventh District), and on the same date, as the crew were engaged in warping the schooner before referred to into the river, a boy named Joseph Curtin, ten years of age, carelessly got in the way of the line attached to the schooner and was knocked overboard from the pier. The life-saving crew promptly went to his assistance and succeeded in saving him from drowning.

August 8.—On this date, as the crew of Station No. 8, Tenth District (Hammond's Bay, Lake Huron), were on their way in their boat to Rogers City, Michigan, for provisions, they sighted the small schooner Josie Burns, of Alpena, anchored out in the lake, apparently deserted. Upon reaching her, however, they found one man on board, who was very sick and unable to work the vessel into port, she being bound from Alpena to Rogers City with a cargo of ice. The life-saving crew at once took charge and got the vessel under way and conducted her to her place of destination and there procured for the man medical aid.

August 8.—A man named Anthony Duffy, forty-three years of age, of Racine, fell into the river at that place about noon, and was drowned. The body was recovered by the life-saving crew (Station No. 14, Eleventh District) after it had been under water for half an hour. Immediate and prolonged effort was made for his resuscitation, but without avail.

August 8.—At 1 o'clock in the afternoon the crew of Station No. 17, Eleventh District, sighted a small fishing-boat coming into the harbor of Two Rivers, partially disabled by the breaking of her tiller. Three of the surfmen at once went off in the station skiff and met the boat, and accompanied it in over the bar, ready to assist in case of need.

August 8.—Half an hour after the above occurrence the Two Rivers crew (No. 17, Eleventh District), discovered a fishing-boat in a disabled condition about two miles northeast of the station, she having carried away her sail while endeavoring to beat into the harbor against the strong southerly wind then prevailing. The boat was soon afterwards observed heading for the beach to leeward of the harbor. The life-saving crew, realizing at once the danger of an attempt to land through the heavy surf, started at the top of their speed along the beach towards the boat and arrived just in time to be of great service in helping the fishermen ashore and saving their boat and its cargo of fish, the men being very thankful for the aid thus rendered them.

August 10.—At sunset the sloop-yacht Hattie B., of Boston, five tons, having on board a party of five young men, bound on a holiday excursion,

sion to Martha's Vineyard, stranded on Shovelfull Shoal, off Monomoy Point, Massachusetts, while endeavoring to beat up through the slue between Handkerchief and Shovelfull Shoals into Chatham Bay, for a harbor. The wind at the time was strong from the northward and dead against her. The shoal upon which she stranded becomes partially dry at low-water and dangerous eddies and currents exist around its margin, rendering navigation extremely dangerous to those unacquainted with the locality. There are no habitations at the extremity of the point, the nearest, a mile or two distant, being occupied by fishermen from the main-land who carry on operations from Monomoy Beach. The accident was seen by a fisherman returning from the point, and upon reaching the settlement he reported the fact to the keeper of Station No. 13, Second District, who also follows the avocation of fisherman during the summer months, when his station is closed and the crew disbanded. The latter at once called for volunteers to accompany him to the point and rescue the people on board the sloop, and all who were present, thirteen in number, responded. Arriving in boats, after dark, they found the yacht in the breakers, nearly full of water, running-rigging unrove, sails torn, and the small boat stove and thus rendered useless; in fact, she was almost a wreck, while the excursionists were in a truly pitiable condition. The edge of the shoal where they were stranded was far distant from the desolate-looking beach, and as aid was scarcely expected from that quarter they endeavored to attract the attention of vessels passing through Vineyard Sound by burning everything of an inflammable nature on board as signals of distress. They even stripped off their garments and attempted to burn them, in their efforts to make their perilous position known. While some were thus engaged, others, despairing of succor from the outside, attempted to construct a frail raft out of the cabin doors, a water keg, and some oars. Becoming despondent at the ill success of their efforts, all their valuables were collected and secured upon the person of the most expert swimmer of the party, who, charged with messages to the relatives and friends of the rest, was about to attempt to reach the shore through the surf, when, to their great joy, the rescuing boats came up. Taking in at a glance the true state of affairs, the fishermen saw that the half-naked youths were entirely out of their element on board such a craft, in such a place, surrounded by swift-running currents, tide-rips, and breakers which require the skill of experienced persons to encounter and pass, even in the daytime, without danger. They immediately set to work and pumped the yacht out, rove the halyards and sheets afresh, and then making what sail was possible, succeeded, with the aid of the strong breeze, in driving her off the shoal into deep water; after which they ran the vessel to a comparatively safe place under the lee of Monomoy Island, and anchored for the night. This done, the young men were conveyed ashore to the fishing settlement, where they were made comfortable and their clothing dried; then, after partaking of a good supper, they returned on board their yacht, accompanied by the station-keeper and others of the rescuing party, who volunteered to see them clear of danger and safely on their way. Next morning, after effecting temporary repairs, the keeper piloted the yacht clear of the shoals into Vineyard Sound, and then left her on her course for Edgartown. Upon their return to Boston the party united in addressing the following letters to the General Superintendent of the Life-Saving Service, and the keeper of the station, in acknowledgment of their deliverance from the serious danger which had threatened them.

"To the Hon. SUMNER I. KIMBALL:

"DEAR SIR: We, the undersigned, would like to acknowledge our gratitude and thanks to Capt. Nathaniel E. Gould, of Life-saving Station No. 13, Second District, Chatham, Massachusetts, for the services rendered us on the night of Wednesday, August 10, who with two boats' crews rescued us from Shovelfull Shoal, near Monomoy, Massachusetts. We would all have certainly been drowned but for their timely assistance, as the distance from shore and the roughness of the water would have prevented us from saving ourselves. As it was in the inactive season of the Service, we thought it our duty to mention their bravery to you.

"Most respectfully,

"VICTOR L. SECHE.

"FRANK Q. LEMAN.

"MONTE P. SMITH.

"VARNUM H. WAUGH.

"JAMES P. PENNYWICK.

"BOSTON, *September 19, 1881.*"

"SEPTEMBER 19, 1881.

"MY DEAR FRIEND CAPTAIN GOULD: Having a few moments of leisure, I thought I could use them to no better advantage than to give them to you. It would be very hard to forget you or your face after what you did for us on that eventful night, and afterwards on the beach, and your trouble in piloting us out in the bay. You may feel assured that it was service we will never forget. I live in the hope of some day repaying you with interest.

"All the boys had a meeting a few nights ago, and we talked over the trip and our disaster, and all were loud in their praises of you and the brave men who rescued us from a watery grave.

"I thought it would be no harm to write to the Life-saving Service at Washington mentioning the service rendered us that night, and, if you think proper, will oblige us by forwarding it to the Hon. Mr. Kimball.

"I remain, respectfully,

"VICTOR L. SECHE."

August 11.—Shortly before 4 o'clock in the morning the west patrol from Station No. 10, Tenth District (Lake Superior), observed a large passenger steamer steering a course that would have taken her ashore in a very few minutes, the hazy condition of the atmosphere preventing her people from seeing the land. He at once burned his patrol signal, and the steamer thus warned altered her course just in time to avoid running hard aground.

August 11.—At half-past 7 o'clock in the evening the crew of Station No. 17, Eleventh District (Two Rivers, Wisconsin), heard distress signals from a steam-barge which had passed the harbor apparently all right half an hour previous, steering south towards Manitowoc. A fresh gale was blowing from the south and the sea was quite heavy, but the keeper ordered the life-boat out at once, expecting the aid of a tug which had promised to follow the life-saving crew and pick up their tow line as soon as the boat cleared the breakers at the entrance. This the tug failed to do on account of the great risk of swamping, and the life-boat therefore set out alone into the lake. It was extremely arduous work, and after pulling for two hours in the darkness in search of the vessel, during which they made but three miles to windward and found no trace of the barge, it was deemed useless to proceed further, it being evident

that assistance had reached the vessel from Manitowoc. This proved to be the fact, for soon after returning to the station the keeper dispatched one of the surfmen to the place named and it was there learned that the barge had arrived safely, having been towed into port, in a disabled condition, by another steamer.

August 13.—At 5 P. M. the lookout on the roof of Station No. 16, Eleventh District, (Sheboygan, Wisconsin), discovered a small sail-boat, with people in it, drifting to the southward, and apparently unmanageable. She was then about two miles southeast of the station, and a mile from the nearest shore. The surf-boat was at once manned, and the life-saving crew put off to the rescue. A fresh breeze was blowing from the northeast, making the lake quite rough. The occupants of the boat were three young men, residing at Sheboygan, who had gone out for an afternoon sail. The rudder had become unshipped and was lost, and as there were no oars in the boat, the frail craft was fast driving before the wind and sea when her perilous position was observed from the station. Drenched to the skin, and with their boat half full of water, the boys were badly frightened at the prospect of a night's drift upon the lake, and perhaps of being drowned before assistance could reach them. Their joy can therefore be imagined at seeing the life-saving crew approaching, and finally draw up alongside. It took but a moment to transfer them to the surf-boat which was at once headed towards the land, and the sail-boat towed to the nearest safe place and secured. The young men were then conducted to the station, and provided with dry clothing until their own wet garments could be dried, after which the life-saving crew completed their task by returning to where they had left the sail boat, and hauling her onto the beach for the night.

August 14.—The steam-tug George D. Seymour of Ogdensburg, New York, with some barges in tow, became disabled, by the blowing off of her cylinder-head, while on Lake Ontario bound from Montreal to Oswego. The barges at once made sail, and attempted to tow the tug to their port of destination. When about fifteen miles to the westward of Big Sandy Creek, the vessels were sighted by the keeper of Station No. 1, Ninth District, located at that point. It was then 2 o'clock in the afternoon. They made but slow progress, and an hour or two later the keeper observed that the barges had dropped the tug, and were proceeding without her. The tug was closely watched from the station, with the aid of the glasses, and at about 6 o'clock she hoisted a signal. The surf-boat was at once manned and pulled out to her. On the way out the wind freshened, and the lake became quite rough, giving the men a hard pull. Arriving alongside at 8 o'clock the captain informed them that as the wind was moderating, and the night would probably be fine, the only assistance he desired was that the life-saving crew should renew, by telegraph, a message he had sent by the barges, to Oswego, for a steamer to tow him in. The life-saving crew therefore returned to their station, reaching it at 11 P. M., and dispatched the message as requested.

August 15.—At 5 o'clock in the evening the sloop Julia A. Reid, of Somers Point, New Jersey, with twelve persons on board, bound from Absecon on a short pleasure trip to sea, drifted ashore on the south side of Absecon Inlet, New Jersey. The wind was very light from the northeast and the sea quite smooth. The life-saving station at the inlet (No. 27, Fourth District) was closed for the season, but the keeper was on hand and witnessed the accident. He at once assembled a boat's crew, composed of three of his own men and four volunteers, and proceeded alongside in the surf-boat. The vessel was well up on the beach

and the excursionists had got ashore without assistance before the arrival of the boat. As the sloop was not equipped with suitable lines for such an emergency, the keeper procured a hawser from the station and with that bent to her anchors and carried off shore they succeeded, after three hours' labor, in heaving her off in good shape. But for the service thus promptly rendered the sloop would in all probability have filled with water at next high tide, and thus have suffered considerable damage.

August 15.—Two hours after safely mooring the Julia A. Reid inside the harbor the keeper of Station No. 27 sighted the schooner Henry Disston, of Norfolk, Virginia, lying becalmed about two miles off-shore. He knew she had gone out early in the day with an excursion a y numbering about one hundred and thirty, expecting to return before dark. The wind dying out and the tide being against her, the schooner was unable to reach port. Being a small vessel of but 40 tons burden, she, of course had not sleeping accommodations for so large a number of people. The keeper knowing that some of them would be alarmed at the prospect of remaining out all night and that all would be seriously inconvenienced on account of their number, mustered a crew and went off in the surf-boat and offered to take all ashore who desired to go. About fifty availed themselves of the offer and were safely landed, three trips being made, the last load reaching the beach at four in the morning (August 16). The rest of the excursionists preferred remaining on board, and did not get ashore until some hours later, when a favoring breeze sprang up and enabled the schooner to reach the wharf inside.

August 15.—At half-past 7 in the evening the sloop Frolic, of Chicago, Illinois, with two men on board, while running into the light-house slip in Chicago Harbor, collided with and was capsized by the tug R. Prindiville, which was steaming out of the harbor with a vessel in tow. The accident was witnessed by the lookout at Station No. 11, Eleventh District (Lake Michigan), and the crew at once put off in the surf-boat to the sloop's assistance. Arriving alongside, they found the two men belonging to the sloop had been taken on board the tug, and that the latter, without stopping to land them, had proceeded out into the lake. The life-saving crew, therefore, endeavored to right the sloop; but failing in this, as she was full of water, they towed her into the light-house slip and made her fast in a safe place until the return of her crew.

August 16.—At 6 o'clock in the morning the crew of Station No. 15, Eleventh District (Milwaukee, Wisconsin), were called upon to grapple for the body of a boy drowned the day previous about half a mile north of the station. The place was very rocky and the surf quite bad, and the crew, after dragging the bottom for about four hours, failed to find the corpse.

August 18.—The schooner Fiat, of Big Sandy Creek, Lake Ontario, New York, whither she was bound from Oswego, having five persons on board—one a passenger—and a cargo of coal and flour, grounded at 8.30 A. M. on a large boulder near the entrance to the creek. Fortunately the wind was light and the water smooth. The accident was seen from the life-saving station (No. 1, Ninth District), a quarter of a mile distant, and the crew at once hastened to her assistance. Having no warps on board the schooner long enough for use in getting her afloat, the station lines were sent for. Running one of these lines to the north bank of the creek from the bow of the schooner, another was bent to an anchor and carried out from aft, and an attempt made to

heave her off the rock. Their first efforts failing, the captain went ashore to procure the aid of a vessel to lighten the cargo. During his absence the station crew made another and more vigorous effort, which resulted successfully, the schooner being floated without damage. The schooner was then warped into the creek and made fast to the wharf, after which the men returned to their station.

August 18.—Ada McMartin, twenty years of age, fell into the water from the west pier, near the light-house, at Oswego, Lake Ontario, New York and, on rising to the surface, was rescued by the light-keeper and his assistant. She had been under water some time, and, although conscious, was very much exhausted. The light-keeper placed her in charge of the keeper of Station No. 3, Ninth District, who arrived just as she was taken from the water, and conveyed her to the station and took the proper steps for her recovery. Symptoms of congestion becoming apparent, the keeper applied the necessary remedies, which are always on hand at the stations for such cases and in the use of which the men of the Service are fully instructed. Medical assistance was also sent for, two physicians responding to the call. Upon examining the patient and learning what had been done, the physicians expressed approval of the treatment, and soon afterwards left, fully satisfied that their services were not needed. In a few hours the young lady had sufficiently recovered to permit of her transfer to the city hospital for further treatment.

August 18.—On this date the crew of the Milwaukee station (No. 15, Eleventh District) went out in their surf-boat and assisted the surveyor, engaged in determining the range-bearings of the piling driven outside the harbor for the new breakwater in course of construction at that place.

August 20.—At 4.30 P. M. a report reached Station No. 16, Eleventh District (Sheboygan, Wisconsin), that two boys, named Hugo S. Steel and Edwin J. Deotting, aged nine and seven years, respectively, had been drowned that afternoon while bathing in the river. The life-saving crew at once proceeded to the scene in their boat, equipped with the necessary appliances, and after grappling for ten or fifteen minutes over the spot where they had disappeared both bodies were recovered. They had been under water nearly two hours, and a physician who was present, after examining them, pronounced life extinct. The bodies were therefore placed in charge of the coroner for the necessary inquest.

August 23.—Two men, residents of Manitowoc, Wisconsin, in attempting to reach Two Rivers, a few miles distant, in a small sail-boat, mistook the entrance to the latter harbor, and came near running their boat into the surf on the beach. Being unaccustomed to the management of boats, they would probably have fared badly but for the prompt assistance of three of the crew of Station No. 17, Eleventh District (Two Rivers), who put off in time to prevent accident and towed the boat safely into the harbor.

August 27.—Shortly before 6 o'clock in the evening an alarm was given at Station No. 15, Eleventh District (Milwaukee, Wisconsin), that a skiff with two boys in it had capsized near the south pier, a short distance from the station. The surf-boat was run out and the life-saving crew reached the spot a few minutes later, but the boys were already safe, one of them having been instantly picked up by a boat lying near, while the other little fellow had climbed up on the dock without assistance. The crew righted and bailed the skiff out and towed it to the station, where they put it in good order so the boys could return in it up the river to their homes.

September 1.—At 11 A. M. the crew of Station No. 2, Ninth District (Salmon Creek, Lake Ontario, New York), heard a steamer's alarm-whistle, apparently not far from shore, although nothing could be seen of her on account of the dense smoke from forest fires which hung heavily over the lake. The life-saving crew went off in the direction of the sound, and after pulling about two miles east of the station found the steamer Thomson Kingsford, of Oswego, whither she was bound from a Canadian port, with a crew of ten men and a cargo of lumber, lying to not far from shore, unable to find her way. She had overrun her reckoning, and the captain was anxious to communicate with the shore to ascertain his true position. The keeper informed him of his whereabouts, giving the bearing and distance of Oswego, and then, after seeing the steamer well on her way, returned to his station.

September 2.—At 4 in the afternoon, while a number of boys were playing on the wharf at Charlotte, Lake Ontario, New York, one of the number, named Frank Allen, lost his balance and fell into the water. An alarm being given, four surfmen of Station No. 4, Ninth District, near by, and a number of other persons who were in the vicinity, hastened to the spot. The body was recovered after being under water nearly thirty minutes. Earnest efforts were at once made towards resuscitation, and it was not until an hour and a half after it was taken from the water, and all possibility of success had vanished, that the attempt to restore respiration was relinquished. The child was very delicate, and life was no doubt extinct when the body was found.

September 3.—At half-past nine in the forenoon the lookout at Station No. 16, Sixth District, (Bodie's Island, North Carolina), reported a sailboat with one man in it, drifting with the ebb tide out of the inlet towards the bar, and in danger of capsizing in the breakers. The life-saving crew at once went to the man's assistance, and, after towing his boat safely inside, aided him to land.

September 3.—Henry Hobart, aged twenty-eight years, fell overboard while at work on the Government pier at Sheboygan, Wisconsin, and immediately sunk. Word was at once sent to Station No. 16, Eleventh District, a quarter of a mile distant, and the keeper, with five surfmen, equipped with grapnels, boat-hooks, and the needful appliances for the resuscitation of apparently drowned persons, hastened to the spot. On arriving they found that his fellow-workmen had recovered his apparently lifeless body after he had been under water ten or twelve minutes. After forcing open his tightly clenched jaws the life-saving crew proceeded at once to apply the method used in the service for his resuscitation. He soon gasped for breath, and thus encouraged the men persevered in their efforts to restore respiration. It was not until they had worked upon him an hour and a half, however, that his pulse was perceptible. In the meantime a physician had been sent for and he, upon arrival, approved of what was being done and advised its continuance. The manipulation was kept up for nearly three hours, and then, when breathing had been thoroughly established, he was placed on board a tug lying at the pier and conveyed to the station, where every means was adopted for his complete restoration. As an evidence of his utter prostration it was reported that he lay fifteen hours in a state of unconsciousness, and further that he did not recover his speech until the second day after the accident. Four days' careful nursing at the station, in which the life saving crew took regular turns, brought him well enough to stand removal, in the opinion of the physician who regularly visited him, and he was then taken home in a carriage. The

shock to his system was too great, however, as congestion of the lungs supervened, and his death resulted therefrom a few days afterward.

September 4.—At 1 o'clock in the morning, the British steamer *Scindia*, 1,423 tons register, of Hull, England, bound from Halifax, Nova Scotia, to Norfolk, Virginia, in ballast, with a crew of thirty-three persons, stranded in thick weather on the outer bar of Hog Island, Virginia, one mile from Station No. 9, Fifth District, and the same distance from the shore. The patrolman saw her coming on, and endeavored in vain to warn her off by swinging his lantern and burning Coston lights. As quickly as possible he reported to the keeper, and the surf-boat was launched, though with difficulty on account of the high sea, and pulled out to her. It was 4 o'clock when the life-saving crew boarded her and found her pounding hard, with the sea breaking heavily around her, and the men in a state of great excitement and alarm. After consultation with the captain, the life-saving crew proceeded to assist in throwing overboard ballast to lighten her, and in carrying out anchors to windward, with the view of heaving her off. When the tide fell it became necessary to suspend operations for a time, but at the earliest moment possible the work was resumed, and by four in the afternoon the steamer was safely floated off and ready to resume her voyage. The officers of the *Scindia* expressed much thankfulness for the assistance rendered. Had it not been for the service of the life-saving crew the vessel would probably have become a total wreck.

September 4.—The Canadian steamer *California*, of Montreal, bound down the lakes to the Saint Lawrence River, was observed by the crew of Station No. 1, Ninth District (Big Sandy Creek, Lake Ontario, New York), standing off and on abreast the station, as though uncertain of her position and wishing to communicate. The air was thick with smoke from forest fires raging in the lake region, thus rendering navigation both difficult and dangerous. The keeper, therefore, put off from the station and gave the captain his true bearings, which enabled him to proceed at once on his voyage.

September 4.—The scow *Nellie*, of Detroit, Michigan, bound from Holland to Charlevoix, Michigan, with a cargo of fruit and vegetables, capsized off the harbor of Muskegon, at 8 o'clock in the morning, while seeking shelter from the gale then prevailing upon Lake Michigan. Her crew of two men were lost before assistance could reach them from the life-saving station (No. 8, Eleventh District), a quarter of a mile distant. (See page 18.)

September 4.—The schooner *Sarah Ann Johnson*, of South Haven, Michigan, fourteen tons burden, having a crew of two men, bound from Muskegon, Michigan, to Kenosha, Wisconsin, with a cargo of lumber and laths, encountered a strong southwesterly gale, with rain, when off Grand Haven, and lost some of her sails. She was immediately kept away towards the last-named port, for a harbor. While running for the piers the steering apparatus became disabled by the breaking of the tiller, and in this unmanageable condition she missed the entrance and drove ashore at 8.15 A. M., about seventy yards south of the south pier and half a mile southwest of Station No. 9, Eleventh District (Lake Michigan). The accident was observed by the keeper, who ordered his crew out and immediately proceeded in the surf-boat across the river to the south pier, whence they soon reached the schooner on foot. The vessel had gone high up on the beach and her men were easily assisted ashore by the life-saving crew. The latter at once conveyed them to the station, where dry clothing was loaned them until their own wet garments could be dried, and other necessary provision made for their comfort. The

schooner was subsequently hauled off, having sustained but slight damage, and proceeded on her voyage.

September 6.—At 11 o'clock in the forenoon the schooner Wave Crest, of Sag Harbor, New York, 300 tons burden, bound from Georgetown, District of Columbia, to Bristol, Rhode Island, with a cargo of coal, struck on Black Rock, on the south shore of Block Island, about two miles south-southeast of Station No. 5, Third District. As is frequently the case with such accidents in the locality named, the stranding of the schooner was occasioned by the dense fog prevailing at the time. She had eight persons on board, one of whom was a passenger. Before long she was discovered by the station patrol, who quickly summoned his comrades, the life-saving crew reaching her in their boat within an hour after she struck. The keeper's offer of assistance was gladly accepted, and the life-saving crew set to work without delay in an effort to heave the vessel off. This they succeeded in doing by 2 o'clock in the afternoon, and the schooner again floated in deep water. It was found, however, that the rudder was disabled by contact with the bottom. With his vessel thus crippled the captain desired the services of a tug to tow him to port. He therefore landed and in company with the keeper proceeded across the island to New Shoreham, where a steamer was engaged, and the schooner soon afterwards left in tow for her destination. By the energetic action of the life saving crew it is probable the vessel was saved from total wreck, as the shore on which she struck is quite a dangerous one, being fringed with rocks and boulders and exposed to the full sweep of the broad Atlantic.

September 7.—The crew of Life-saving Station No. 2, Tenth District (Point aux Barques), Lake Huron, signalized themselves on this date by sturdy service at sea, after equally sturdy service on land, their action in both cases appearing in the terrible relief given by a Western forest conflagration. For several days the whole wild country in the neighborhood of the Point aux Barques Station had been on fire, and anxiety and alarm prevailed everywhere. The life-saving station, which is near the water and on the edge of the woods, had remained unmenaced, but in the afternoon of September 5 the fire came suddenly roaring toward it, with a frightful energy which seemed to portend the total destruction of everything in its path. The stout-hearted keeper at once rallied his men to fight the flames. All hands sprang to action. The old surf-boat was launched, and the new one placed on the pier ready for launching. Everything in the nature of a vessel was filled with water, including two pork-barrels and two buckets set up on the roof of the station. The boat-wagon, oil, tools, spare oars, and all the apparatus and appliances were hurriedly removed from the house and put down near the lake, as far as possible from the conflagration, and the station powder was also removed to a place of safety. As the light-house near by (about three hundred yards distant) was by this time in great danger, the keeper dispatched five of his men to help Mr. Shaw, the light-keeper, to fight the fire, which they did successfully. Meanwhile the fire was raging around Mr. Shaw's farm, a mile northwest of the station, and all the buildings upon it, including three barns, were in flames. Indeed the whole beach and all the woods in that direction were in conflagration, and the black smoke rolled down in a universal cloud, scarcely pierced by the red wefts of awful flame. The keeper knowing that Mr. Pethers and his family were up at the Shaw farm in the heart of this dreadful scene, grew fearful for their safety, and bravely resolved to go at once to their rescue. It was then about 5 in the evening, and as it was impossible to travel along the blazing beach (the woods in that region growing

near the water's edge), the keeper and his men launched the surf-boat and pulled with all their vigor to the farm. They found Mr. Pethers, his wife and five children, and George Shaw, lying on the ground, nearly suffocated with the smoke—so far gone, in fact, that they had to be carried to the boat. But for the timely aid given them they would have surely perished. The boat returned with them to the station, and the night was spent in watching the fire, the danger being imminent. At 8 o'clock in the evening, the conflagration came again with a rush toward the station, and the crew fell to fighting it with all their energy. The surf-boats were launched, the hawsers, hauling-lines, and all cordage submerged in the lake, and everything combustible was taken away from the station to the water's edge. The house was, of course, kept drenched with water. It was a terrible night. Everything around the gallant out-post was swathed in smoke and flame. The efforts of the men continued until daybreak. By the morning of September 7, the station-house seemed out of danger, all around being black char, but the whole country beyond was still on fire.

Toward morning of that date, as several vessels were proceeding down Lake Huron in tow of a steamer, one of them, the schooner-rigged barge C. Amsden, of Vermillion, Ohio, became separated from her consorts by the breaking of the tow-line. She was a vessel of 184 tons measurement, and was bound from Alpena, Michigan, to Toledo, Ohio, with a full cargo of lumber. At the time of the accident the vessels were about eight miles from the nearest land, Point Aux Barques lighthouse being that distance off to the westward. She had eight persons on board, including the captain's wife, two children, and a stewardess. A fresh northerly gale was blowing, and the steamer had about all she could attend to in keeping before the sea, which was very rough, and making towards Sand Beach harbor of refuge, some miles down the coast. Under these circumstances the steamer was compelled to leave the Amsden to her own resources until the other vessels could be taken to a harbor, as an attempt to round to and pick her up would probably result in the breaking adrift of the entire convoy, with possibly disastrous consequences. Before sail could be set and the barge brought under proper control, she broached to and commenced laboring heavily in the trough of the sea, the result being that she sprung a leak and soon became water-logged. In this unmanageable condition, with the vessel making a southwesterly drift in the direction of the land, it became a question with her crew whether she would hold together until the beach was reached or break up beneath their feet and become a wreck while yet far from land. The sea was steadily increasing and matters had assumed a very serious aspect. The undertaking was an extremely hazardous one, but the captain finally resolved to take to his boat and abandon the vessel, preferring the risk of such a course to that of remaining on board. The yawl was therefore lowered, and by the captain's skillful management all hands reached *terra firma* in safety, after a perilous trip, at a place known as Whisky Harbor. It was at half-past 10 in the morning when they broke adrift from the tug, and the sun was an hour past the meridian when the people landed on the Michigan shore and sought the nearest house for shelter. In the meantime the crew of the life-saving station had observed the vessel part company with the others, but owing to her great distance in the offing were unable to tell whether she was in trouble or not. They were then busily engaged replacing the apparatus in the house, whence it had been removed as related when the danger was most imminent. Watching the vessel as they continued their labors, it soon became apparent,

although no signal was displayed, that she was helpless and in need of assistance. The surf-boat was therefore launched and manned. The men were much fatigued from loss of rest and their protracted and unremitting labors at the fire, but the prospect of succoring their fellow-beings lent them renewed strength as they gallantly set out on their errand of mercy. When within a mile or two of the vessel she was seen to fetch up on an outlying reef about three and a half miles distant from the station. Fearing this would enhance the peril of those who might be on board, although no sign of life could as yet be seen, the station crew tugged at the oars with increased energy, and by 2 o'clock, after a hardy struggle with the heavy sea, had the satisfaction of reaching her side. It was not until then that they discovered her abandonment. Not a soul was on board. Her boat being also gone, it was supposed the people had taken refuge on board one of the other vessels, which were now out of sight to the southward. The idea of their landing seemed out of the question. The barge was full of water and lay hard and fast on the reef, head to the sea, which constantly broke over her fore and aft. The cabin on deck was a complete wreck. Her position rendering it dangerous for the boat to remain alongside, the keeper hastily collected such articles as could be saved and then shoved off on his return, reaching the station about 4 o'clock, with the determination to again go off when the sea went down. With moderate weather, next morning, the life-saving crew made another trip, finding the condition of the barge unchanged. More property was saved, and this time a landing was made at Whisky Harbor, some miles from the station, and there they found the barge's people safe and sound. After learning the particulars of the disaster from the captain, and promising all the aid in his power towards getting the vessel off, the keeper left, taking three of her people to the station for shelter. That afternoon the steamer arrived off the station and signaled with her whistle for the life-saving crew. She was in search of the *Amsden*, but unable to find her on account of the dense smoke from the forest fires, which still overspread land and water. An unsuccessful effort was made to pilot the steamer to the reef, but darkness coming on, the attempt was abandoned. Two days later (September 10) the captain of the barge, after arranging everything towards floating the vessel, sent to the station for his three men. The life-saving crew accompanied the latter off, taking with them the property saved. The barge came off the reef the following day, and at once proceeded in tow to Sand Beach for repairs, preparatory to resuming her voyage.

September 7.—As the regular watch from Station No. 5, Eleventh District, was on duty patrolling the south pier of the entrance to Manistee Harbor, Lake Michigan, at 3 in the morning, he noticed a vessel making for the harbor during the prevalence of a fresh northwesterly gale. The lake was very rough, and as there was some risk in the attempt to enter the river in the darkness, he paused to observe her movements as she coursed rapidly onward. Suddenly, when near the south pier, she swerved from the channel and drove in towards the beach south of the harbor. The fact was she had struck upon a sunken crib off the pier-end and knocked a hole in her bow, through which the water rushed in such volume that she sunk in eight feet of water, about one hundred and twenty yards from the beach. The patrolman instantly dashed off to the station and gave the alarm, and in a very few minutes the surf-boat was afloat and away. The station abuts on the harbor, and it was therefore necessary to pull down between the piers. This was simple enough, but when the end of the piers was

reached the gallant little craft encountered the full fury of the wind and sea. There was no faltering, but with a bold dash through the heavy waves which combed and broke in tumultuous confusion about the harbor mouth, they were soon outside, and then rounded the pier with sturdy strokes towards the vessel. In twenty minutes the spot was reached. The vessel was submerged almost to her deck, and the crew were in the rigging. The men had been driven aloft, as she went down, by the overwhelming seas which swept her deck from one end to the other. Lying stern to the sea she afforded but little lee for the boat, which was brought to under her bow. Here the utmost skill was necessary to prevent the boat from being swamped by the angry waters which at intervals overswept everything, and it was only by watching the lulls between the seas that the sailors in the rigging could descend, one at a time, and hastily clamber over the bow into the boat, which would then be pushed off clear until the next man could follow with safety. When the entire crew, five in number, were thus safely transferred, the boat was successfully beached, and the sailors were escorted to the station, by the keeper, for shelter, the rest of the life-saving crew remaining on the beach to recover such property as drifted ashore. It was now ascertained that she was the topsail schooner-rigged scow *Christie*, 147 tons burden, of and from Milwaukee, Wisconsin, for Otter Creek, Michigan, with a cargo of flour and feed, and that she was seeking refuge at Manistee from the gale when the accident occurred. At daylight communication was established with her by means of lines, and the life-saving crew busied themselves all day in saving such articles as were not ruined by the water. The cargo, however, was a total loss. After landing all movable property, including the sails, they nailed canvas over the break caused by striking the crib, and then with the aid of a steam-pump the vessel was freed of water, and by midnight of the 10th she was raised and taken safely inside the harbor. Next day the station crew assisted in making such further repairs as were necessary to permit her to be towed across the lake to Milwaukee for permanent repairs. Besides the gallant work of taking the people off their sunken craft, amidst darkness and storm, there is not a doubt that the saving of the vessel was mainly due to the exertions of the life-saving crew, who labored faithfully and well towards the accomplishment of that end. They also fed and lodged the *Christie's* crew during the entire period of their involuntary detention at Manistee.

September 7.—At noon the crew of Station No. 13, Eleventh District (Kenosha, Wisconsin), discovered a steamer about six miles distant, southeast of the station, apparently disabled. The weather was bad at the time, but the life-saving crew went off as quickly as possible to offer assistance, the trip being quite an arduous one on account of the heavy sea setting in from the northeast. The steamer proved to be the *Corona*, of the Goodrich line, bound down the lake to Chicago, with passengers and freight. She was temporarily disabled by the blowing out of one of the stay-bolts in the boiler, and the engineers were busily at work repairing the damage. The captain thanked the life-saving crew for going off to him, and informed them that the only assistance they could render would be the landing of one of his passengers who desired to go ashore, and the delivery of a dispatch at the nearest telegraph office, notifying the agents of the steamer of her detention. After remaining on board until the repairs were nearly completed, the life-saving crew returned and landed the passenger and forwarded the captain's dispatch, the steamer soon afterwards proceeding on her way all right.

September 8.—The bark *Florella*, of New York, 838 tons, with thirteen men, while running in to Delaware Breakwater, for orders, with a cargo of iron ore from Lisbon, Portugal, ran ashore at 8.45 P. M., at Cape Henlopen, during a thick fog. The accident was discovered half an hour later by the patrol from Station No. 1, Fifth District, who at once reported it at the station. She was boarded as soon as possible by the life-saving crew and assistance offered. The captain thought nothing could be done without a tug, and requested them to send to Lewes for one, which was done. The bark sustained some damage, but was hauled off a few days later, after throwing overboard about two hundred tons of cargo to lighten her.

September 8.—Willie Burns, a child of six years, got beyond his depth while bathing in Genesee River at Charlotte, New York. He rose to the surface three times and then sunk. A surfman of Station No. 4, Ninth District (Lake Ontario), hearing cries for help, ran to the spot and rescued the boy. A few smart slaps on his chest served to revive him; the water was forced from the air-passages and the child was taken to his home, where he soon fully recovered.

September 8.—At about 3 o'clock in the afternoon the schooner *Emily Stephens*, of Portland, Oregon, bound in over Columbia River Bar, got caught in the breakers on the southerly edge of the Middle Sands and was obliged to anchor to prevent going ashore and being wrecked. Her signal of distress was sighted by the people at the light-house at Cape Disappointment, Washington Territory, and it being supposed she was hard aground, word was at once sent to the life-boat station in Baker's Bay (No. 3, Twelfth District), on the inner side of the cape. As the service at that point was dependent upon volunteers to man the life-boat, the keeper hurried to Fort Canby and obtained a crew, composed of non-commissioned officers and privates of Company F, Fourth United States Artillery, and two civilians, one of whom was the post-trader at the fort, and started as quickly as possible for the vessel, several miles distant. In the mean time the tug *Brenham* had already left the fort wharf, and at the time the boat got off was steaming at full speed to the schooner's assistance. In order to reach the vessel the life-boat had to skirt around the easterly margin of the shoals, across which the ebb tide was setting with frightful rapidity, and the energies of the men were taxed to the utmost to prevent the boat from being swept into the breakers. The *Brenham* being a powerful tug, constructed expressly for that dangerous locality, had gained such a start on the life-boat that she arrived on the scene long before the latter could have done so under the most favorable circumstances. The sea was breaking close to the schooner and she was so completely surrounded by the high-crested surf that it would have been almost madness for the tug to go alongside. The happy expedient was therefore adopted of heaving to to windward and attaching a small line to a piece of cord-wood and allowing it to drift down within reach of the schooner. When communication was thus established, the tug's best hawser was sent on board, and, without taking time to heave up the anchor, the schooner was released from her perilous situation and towed safely into the river, the life-boat crew arriving just as she got inside. The keeper in his report states that the boat's crew behaved splendidly, and that although unaccustomed to such work they needed no urging in their gallant effort to reach the distressed vessel. The return trip was not without its dangers and difficulties, for the tide was dead against them most of the way and the water exceedingly rough, the men upon reaching their quarters being pretty well worn out from the fatigue and excitement of the journey, the entire distance traversed out and in being about sixteen miles.

September 9.—The propeller Skylark, of Benton Harbor, Michigan, while passing down the canal at that place on the night of September 8, bound to Saint Joseph, struck a floating log and knocked a hole in her bottom, the vessel reaching the latter place in a sinking condition. She was kept afloat with steam-pumps long enough to enable the crew to discharge the cargo, and was towed the next morning (9th) onto a shoal abreast of the life-saving station at Saint Joseph (No. 10, Eleventh District), where she rapidly filled with water. The life-saving crew responded promptly to the call for assistance, and rendered effective service in making temporary repairs so as to permit the vessel to be pumped out and taken back to Benton Harbor, two of the men being compelled to work waist-deep in the water for several hours while engaged in stopping the leak.

September 9.—At 10 o'clock in the night the patrol from Station No. 11, Eleventh District (Chicago, Illinois), discovered a scow belonging to the Government, loaded with stone for the new breakwater at that place, adrift in the harbor. Upon his reporting the fact to the keeper, the life-saving crew at once turned out, boarded the scow, and secured it in a safe place for the night, thus probably preventing it from doing damage by fouling vessels in the harbor.

September 10.—At about 7 o'clock in the morning the crew of Station No. 3, First District (Maine), observed a distress signal flying at the fishing camp on Fisherman's Island, a short distance north of Crumple Island, upon which the station stands. They immediately launched their boat and proceeded to the island, and there found a fisherman dying of dropsy, and no one with him but his wife. The poor fellow died soon after their arrival, and after rendering all the aid possible the life-saving crew put off to Jonesport, on the main-land, and reported the facts and had the case properly attended to, returning to their station in the afternoon.

September 10.—At about 10 o'clock in the forenoon, during the prevalence of a dense fog, the lookout at Station No. 2, Fifth District (Rehoboth City, Delaware), discovered a brig heading in towards the beach, and in danger of running ashore. A warning signal was at once made from the station, and the vessel quickly altered her course and stood clear.

September 10.—Frank Curtis, a boy seven years old, while playing on the dock in front of the Station No. 4, Ninth District (Charlotte, Lake Ontario, New York), lost his balance and fell overboard. Hearing the splash, one of the station crew hurried to the water's edge, and there saw the boy struggling at the bottom as though entangled in the thick growth of weeds and unable to extricate himself. The surfman dived instantly and brought the boy to the surface, and then with the assistance of the keeper, who had followed from the station, lifted him safely upon the dock. The little fellow was little the worse for his ducking, although his escape from drowning was doubtless a very narrow one.

September 10.—As the steamer Dahlia, of the United States Lighthouse Establishment, was delivering fuel for the steam fog-signal at Thunder Bay Island, Lake Huron, a fresh gale sprang up from the south-east, which compelled her to seek shelter under the lee of the island, leaving a working party of thirteen of her crew on shore, the heavy sea preventing them from going off in their own boat. As the captain was anxious for their return on board, the crew of Station No. 6, Tenth District, located upon the island, promptly went to their aid and took the men off in the station boat.

September 10.—At half past 1 in the afternoon, the crew of Station

No. 17, Eleventh District (Two Rivers, Wisconsin), discovered a schooner off Rawley's Point, six miles northeast of the station, flying a signal of distress. She was drifting away to the northward and westward before the strong southeasterly wind then blowing. The weather had been rainy and very thick all the forenoon, preventing the vessel from being seen earlier. A steam-barge was observed lying near her, as though rendering assistance. The barge soon afterwards left, and a tug was then seen to stop near the schooner. The coast north of Rawley's Point trends a little to the westward, and before long the schooner was hidden from view behind the point. When the north patrol came in he also reported the schooner with the tug in company. As the movements of the two vessels puzzled the keeper somewhat, he proceeded as far as the point alone, to find upon arrival that the schooner had anchored off a place called Two Creeks, six miles further north, apparently all right, the tug having parted from her and gone south. It was dark when he returned, and an early start in the morning was determined upon, so as to reach the vessel by daybreak. Accordingly, at 2 o'clock A. M., September 11, the life-saving crew set out in the surf-boat and arrived alongside the schooner, after an arduous pull of twelve or fourteen miles, at half-past 5, finding her water-logged and not a soul on board. She was the L. B. Shepard, hailing from Chicago, to which place she was bound from Manistee, Michigan, with a cargo of lumber and shingles. Upon landing at Two Creeks, a mile and a half distant, they met the schooner's crew, seven in number, who had gone ashore the previous evening. The captain was looking for a team to take him to Two Rivers for a tug to tow his vessel to Manitowoc for repairs, the heavy sea of the day before having caused her to leak badly. As no team could be found, he was very glad of the keeper's offer of passage in the surf-boat, and upon reaching Two Rivers the tugs M. A. Gagnon and Commodore Nutt were engaged to tow the schooner into port, the keeper and others of the life saving crew accompanying him, at the captain's request, to assist in handling the vessel. The schooner arrived safely in Manitowoc at half-past 6 in the evening, the captain expressing, when the men left for their station at Two Rivers, the heartiest thanks for the assistance he had received from them.

September 11.—At 1 o'clock in the morning one of the patrolmen of Station No. 8, Ninth District (Cleveland, Ohio), aroused his comrades with the report that a schooner was driving ashore a short distance west of the harbor piers. The wind was blowing a gale from the northwest and the sea ran high. The surf-boat was quickly put into the water, and reached the vessel almost as soon as she fetched up. Before the people could be taken off, however, a succession of heavy seas came toppling in and swamped the boat so completely that it was with much difficulty she was backed in to the beach for the purpose of freeing her of water. When this was done and they were about to push out for a second attempt, another danger confronted the life-saving crew. The schooner's deck-load of railroad ties had broken adrift and began tumbling in upon the beach thick and fast. As the schooner lay three hundred yards from the shore, and the whirl of waters between was thickly strewn with floating logs, an attempt to go off now would have involved the almost certain destruction of the boat, and placed the crew in imminent peril of life and limb. It was therefore resolved to bring out the breeches-buoy apparatus and rig it from the west pier. As the apparatus-cart could not be taken over the crib-work forming the pier, it became necessary to carry everything down by hand, involving considerable labor. When, however, all was in readiness, the first shot

from the gun carried the line directly on board. It was found that the people on the schooner were ignorant of the method of rigging the gear; so one of the surfmen, attired in the Merriman life-saving suit, hauled himself on board by the whip-line and took charge of the operations at that end. The whip-line and hawser were quickly rigged, and soon five of the sailors were safely landed with the breeches-buoy. The crew numbered seven in all, but two of them, the captain and stewardess, concluded to try to remain on board until daylight. From those ashore it was learned that the schooner was the John Walters, of Picton, Ontario, bound in to Cleveland, with a cargo of railroad-ties, from Providence Bay, Ontario. The captain had brought his vessel to in the offing, with both anchors down, hoping to ride out the gale until morning. In this, however, he was disappointed, the wind and sea being so heavy that the anchors refused to hold. Fortunately the gale was of short duration, and by daylight the sea had gone down sufficiently to permit all hands to go on board and commence operations for getting the schooner off. What remained of the deck-load was first thrown overboard and then she was pumped out, so that by noon they were in readiness for the tug which had been engaged to haul her afloat. The sea was still rather too rough to allow the steamer to go alongside, and the life-saving crew took their hawser in the surf-boat and ran it between the two vessels. This being done, the steamer started her engine under a good head of steam, and in a short time succeeded in pulling the schooner safely off and towed her into the harbor, the principal damage being the loss of her rudder. The deck-load having driven well up on the beach, was all saved.

September 11.—At noon of this day the crew of Station No. 4, Eleventh District, Pointe aux Becs Scies, Lake Michigan, discovered pieces of a steamer's hurricane deck, water-casks, and some bedding drifting to the north, past the station. The keeper ordered the boat launched, and was about to go off and tow it in-shore when a dispatch came from the district inspector, who was then at Frankfort, Michigan, a few miles distant, with information of the foundering of the British steamer Columbia, of Montreal, Canada, during the night previous, abreast of Frankfort, about six miles from land and seven miles southwest of the station. The dispatch also directed him to institute immediate search for bodies which might wash ashore. A patrol was at once established on the beach, while the boat went out to recover the wreckage, which was now floating past in large quantities. Considerable property, consisting of trunks, life-preservers, and other articles, was recovered and cared for until called for by the agents of the owners of the lost vessel. Three bodies were found some days later in the vicinity of the station by members of the life-saving crew and citizens who assisted in the search. They were turned over to the coroner of the county, who also took charge of six other bodies recovered near Frankfort.

September 11.—At half-past 5 in the evening, while the keeper and part of the crew of Station No. 17, Eleventh District (Two Rivers, Wisconsin), were absent on board the schooner L. B. Shepard, assisting in taking her to Manitowoc for repairs, two men living at the last-named place, who were considerably under the influence of liquor, started for home in a small sail-boat. They left Two Rivers all right, but before going far it was noticed by the men left on duty at the station that the boat was unmanageable in the heavy sea, and that she was fast drifting into the breakers northward of the harbor. The surfmen at once went to the rescue, and getting on board the boat they brought it,

with the two men, safely into the river, the men afterwards proceeding home by land.

September 13.—On this date, at the request of the commanding officer of the United States Light-House tender Violet, one of the crew of Station No. 11, Fifth District (Smith's Island, Virginia), went on board that vessel and piloted her in over Great Machipongo Inlet Bar, Hog Island, some twenty miles up the coast, and back.

September 14.—The three-masted schooner City of Augusta, of Augusta, Maine, 580 tons register, with a crew of eight men, bound from Gardiner, Maine, to Philadelphia with a cargo of ice, stranded during a thick fog about a mile and a half east of Station No. 6, Second District (Race Point, Cape Cod), at 4 o'clock in the morning. She was discovered half an hour afterwards by the life-saving patrol as he traversed his beat, and the news was at once conveyed to the station. The surf-boat was launched without delay, and by a little after 5 it was alongside the schooner. She lay on the outer bar, four hundred yards from the beach, and the captain was very desirous of obtaining the services of a tug before she drove further in. The keeper, therefore, landed and proceeded to Provincetown, several miles distant, and telegraphed to Boston for assistance. Upon returning to the vessel it was decided to make instant and vigorous effort to relieve her. The sails were trimmed aback and an anchor laid off shore, and by hard heaving on the part of her own crew and that of the life-saving station she was floated from the bar before the tug could arrive, and proceeded on her voyage uninjured.

September 14.—At 3 in the afternoon a small boat, in which Mr. Harrison Babcock, of Rochester, was out for a sail on the Genesee River, at Charlotte, New York, was struck by a puff of wind and nearly over-set. The suddenness of the movement caused the steering-oar to slip from its place, and Mr. Babcock thereby lost his balance and pitched overboard. He managed to cling to the boat, however, until assistance arrived from Station No. 4, Ninth District (Lake Ontario), the keeper of which witnessed the accident, and at once put off with his crew and rescued him.

September 15.—At 2 o'clock in the afternoon, as Uriah Dyer, a Wellfleet fisherman, was attempting to land on the beach at Cahoon's Hollow, Cape Cod, Massachusetts, with a catch of fish, his boat capsized in the heavy surf at a point about two hundred and fifty yards east of Station No. 10, Second District, and he was thrown into the water. The life-saving crew ran quickly to his assistance, and while two of the men rushed into the surf and dragged him out, the others saved the boat and its lading. Mr. Dyer, being a cripple, would in all probability have been drowned but for the prompt aid thus extended to him. After partaking of a good dinner at the station, he was able to leave for his home all right.

September 15.—On this date the crew of Station No. 1, Third District (Narragansett Pier, Rhode Island), put off in the surf-boat and rescued a man who was attempting to land in a small boat through a very heavy surf, the wind at the time being strong from the northeast. But for the assistance thus rendered the boat would have been dashed upon the rocks and the man probably lost, as he had been taken violently sick and was unable to help himself.

September 15.—At about 9 o'clock in the evening the steamer Starke Brothers, a Milwaukee Harbor tug, picked up in Milwaukee Bay a yawl half full of water, with two men in it, who reported the schooner Napoleon, to which they belonged, one being the captain as well as

owner of her, stranded in White Fish Bay, at a point about nine miles north of the harbor piers. The schooner hailed from Milwaukee, whither she was bound from Pierport, Michigan, with a cargo of wood and tanbark, and had a crew of five men. She had been caught in a violent shift of wind from the eastward, which, accompanied by heavy fog, drove her ashore at 7 o'clock, just after dark. Lowering a boat, the captain started for Milwaukee, with one of his men, in quest of assistance, leaving three men on board. The passage was a very rough one, and the two men were indeed thankful when the tug fell in with them. They were towed at once to the life-saving station inside the harbor piers (No. 15, Eleventh District), and upon the facts being reported to the life-saving crew the latter launched their surf-boat and proceeded without delay, in tow of the tug, to the relief of the three men left on the vessel, the captain accompanying them. The night was stormy and dark and the trip dangerous, and when about half way to the schooner the tug found it necessary for her own safety to cast off the tow-line and return to port, leaving the surf-boat to battle her way alone to the stranded vessel. The men toiled manfully at the oars, and when near the supposed locality of the disaster a light was seen shining dimly through the misty atmosphere. It remained in sight but a short time, however, for scarcely had the boat been headed towards it when it suddenly disappeared. Surrounded by the darkness of the night, with a boisterous sea to contend against and no mark to guide them, the men were almost discouraged. They were in momentary danger of being engulfed by the seas, which several times half filled the boat. Still, there was no thought of turning back with their mission unaccomplished. Presently a fog-horn was heard in-shore, and upon pulling in the direction of the sound they were at last rewarded by the discovery of the object of their search lying in the breakers, the three men having been driven to the rigging for safety. The task of getting the men into the boat was attended with much difficulty and risk, the boat filling three or four times during the operation, and it was not until after midnight that their purpose was accomplished and the men landed upon the beach abreast the vessel safe and sound, although both rescuers and rescued were drenched to the skin and shivering with the cold. The friendly shelter of a neighboring farm-house was soon found, and all hands partook of some refreshment, after which they returned to the beach and kept vigil until daylight. By that time the sea had subsided considerably, and ere long the tug Starke Brothers made her appearance in the offing in search of the life-saving crew, for whose safety considerable apprehension had been felt. Launching from under the lee of the stranded schooner, they pulled out to the steamer, which then towed them back to Milwaukee, the men reaching their station at 7 A. M. After breakfasting and taking a short rest they again went to the vessel, accompanied by the captain, and stripped her of sails and running rigging, which were taken to the city, it being 7 in the evening when they got back to the station. Next morning, at half-past 6 (September 16), they again proceeded to the vessel, in tow of the steamer Dexter, the latter having contracted to float the Napoleon off. On arrival they assisted in removing the deck-load and rigging the pump, and then when pumped out she was hauled off and started in tow of the Dexter for Milwaukee. She leaked badly, however, and made so much water that before reaching the harbor she capsized. The services of the life-saving crew were again necessary at this juncture to take off the wrecking party, eight in number, and transfer them to the tug. Upon gaining the harbor the schooner was righted after hauling her along-

side another vessel, to which the necessary purchases were rigged, and she was then towed to a ship-yard for repairs. This day's work was a very arduous one for the life-saving crew, and it was not until 11.30 P. M. that they returned with their surf-boat to their quarters, thoroughly fagged out, and glad to be able to seek much-needed rest.

September 16.—Two men started out in a small skiff from Salmon Creek, New York, for a fishing excursion on Lake Ontario. Lacking experience in the management of boats, they soon found themselves drifting rapidly out into the lake before a strong southerly gale, which they were unable to make headway against in an attempt to return. The man on the lookout at Station No. 2, Ninth District (Salmon Creek), had watched the movements of the two men, and seeing they needed help notified the keeper, who, with three of his men, jumped into the dingey and succeeded in overtaking the skiff about two miles from shore. The men were badly frightened and had almost given up in despair, when, to their great joy, the station-boat was descried coming to their rescue. A line was passed to them and the skiff was towed safely back into the creek. The air was full of smoke from the forest fires raging in the vicinity, and but for the vigilance of the life-saving crew the skiff would soon have drifted out of sight.

September 17.—At half-past 3 in the morning the south patrol from Station No. 6, Fifth District (Pope's Island, Maryland), found the body of a colored man in the surf, which was recovered and decently interred by the life-saving crew.

September 17.—At 2.30 A. M., during the prevalence of a strong southerly gale upon Lake Huron, the schooner Colonel Hathaway, of Detroit, lying at the wharf at South Harrisville, Michigan, loading lumber for Springport, was wrenched from her moorings and driven ashore. The morning was intensely dark and rain fell in torrents, but the schooner drove so far up on the beach that her crew of five men found no difficulty in saving themselves without aid. While drifting in, the Hathaway collided with the schooner Garibaldi, also of Detroit, which was loading at the same wharf, and she too broke adrift and drove ashore. The crew of this vessel, five in number, were equally fortunate in getting ashore without trouble. Word being sent about noon to the life-saving station at Sturgeon Point (No. 5, Tenth District), six or seven miles distant, that two vessels were ashore at South Harrisville, the crew at once repaired to the scene to offer their services. The crew of the Hathaway were busily at work stripping their vessel, but requiring no assistance. Finding nothing could be done for the Hathaway, the life-saving crew went to the aid of the Garibaldi. After discharging her cargo of lumber and tan-bark, which had been received on board for conveyance to Mount Clemens, Michigan, they pumped her out and assisted in heaving her within reach of the lines of a steam-barge, which then took hold and hauled her afloat. She came off in a leaky condition, but nevertheless reloaded her cargo and proceeded to her port of destination in tow of the steamer which assisted in getting her off. The Colonel Hathaway became a total wreck where she lay, although the greater part of her cargo was saved.

September 17.—On this date the bark Rival, of and from San Francisco for Knapton, Washington Territory, with a cargo of hay and shingles, was wrecked upon Peacock Spit, Cape Disappointment, at the entrance to Columbia River. There were twelve persons on board, including the captain's wife and a Columbia River bar pilot. From the reports received it appears that the captain had engaged a steam-tug to tow him in over the bar (north channel), it being nearly dead low-

water and a strong southerly wind blowing at the time. The steamer's hawser had been passed on board the bark, but before it could be made fast the end slipped from their grasp, and to avoid going onto the shoal to leeward an anchor was quickly let go to hold her. By ill luck, the sudden jerk with which she fetched up parted the chain, and the bark stranded on the spit before she could be checked by the second anchor, which was instantly dropped. The sea was very rough, and the bark at once commenced pounding so heavily that it became necessary to slip the anchor to allow her to drive higher up, to save her from going to pieces. The disaster occurred at about noon, and the keeper of Station No. 3, Twelfth District—which at that time was a volunteer station, the apparatus being worked upon occasions of disaster by a volunteer crew—on learning of the wreck soon after its occurrence, at once called for volunteers to man the surf-boat. A full crew, composed of non-commissioned officers and privates of Company F, Fourth United States Artillery, stationed at Fort Canby, and two citizens, quickly assembled and the boat was started for the wreck. The journey around the point, the distance being a mile and a half, dead in the teeth of the gale, against a heavy sea, was quite a difficult one, and it was nearly 2 o'clock when the boat neared the bark. They had nearly reached her when the keeper observed the people lower a life-boat and then get into it as quickly as possible and shove off, heading at once for the shore. The keeper, therefore, without touching at the vessel, followed the boat in, ready in case of accident to render assistance. Nine of the bark's crew were conducted to the station by the keeper and comfortably housed and fed until the next day, when they returned on board and saved as much of the cargo and outfit as possible, the damage to the vessel precluding all chance of saving her, she having driven inshore to within two hundred feet of the beach during the night. The volunteer crew behaved very gallantly on this occasion, and it was from no tardiness on their part that the vessel was not reached before the sailors left in their own boat.

September 18.—The keeper of Station No. 12, Eleventh District (Grosse Point, Illinois), dragged for and recovered the body of Mr. Abraham Snyder, seventy-five years of age, accidentally drowned the day previous while fishing from the pier at Evanston.

September 19.—At about midnight of the 18th the brig Clara J. Adams, of Lubec, Maine, stranded on the east end of Peaked Hill Bar, Cape Cod, Massachusetts, during the prevalence of a hard northeast gale, with thick weather. There was also a very high sea, and it was to sheer stress of weather, in conjunction with a strong westerly current setting into Massachusetts Bay that the disaster was due. The brig had a crew of eight men, and was bound from Booth Bay, Maine, to Philadelphia, with a cargo of ice. She was discovered at 1.30 a. m. by the life-saving patrol, who hurried to his Station (No. 8, Second District), two miles to the westward, and gave the alarm, it being 2 o'clock when he rushed into the house and aroused his comrades. As the beach was in a terribly soft condition, one man was at once dispatched by the keeper to a neighboring farm-house for a team, while the others got the boat out on its carriage ready for a start. The horses reached the station in twenty minutes, and were hitched to the boat-wagon, and started at the best pace possible towards the wreck, abreast which they arrived at quarter-past 3. The team was then sent back for the cart containing the beach apparatus, the driver being instructed to make all the haste he could. Nothing but the dim outline of the vessel, lying head on, could be seen amidst the tremendous confusion of the breakers

upon the outlying bar, three hundred yards and more from the beach; and before a definite plan of action could be determined upon the keeper and crew of the next station west (No. 7) arrived upon the scene, the wreck lying nearly midway between the two houses. It was then half-past 3, and the two keepers at once joined in consultation as to the best course to be taken. The conditions were such that to launch the boat was unusually hazardous, and the distance and darkness rendered the prospect of successful communication by means of the shot-line extremely doubtful. At this juncture word came that it was impossible for the now thoroughly jaded horses, owing to the bad condition of the beach, to haul the apparatus without assistance. The men of No. 8 were therefore detailed to render the required aid, while those of No. 7 remained on the ground ready with the boat for any emergency. The horses had come nearly to a standstill three-quarters of a mile off, and when the surfmen reached the spot some manned the drag-rope while others put their shoulders to the wheels, and by dint of hard pulling and pushing over the soft and yielding sand the apparatus was slowly got to the scene of intended operations. It was still dark and stormy, and while waiting for day it was decided to bring an extra boat down. The crew of No. 7 therefore, in turn, proceeded with the team to the relief station between Nos. 7 and 8 for the spare boat kept there in reserve for just such occasions as the present. The first glimmer of dawn now began to appear in the eastern sky. Although it was yet too early to see the vessel plainly, the men, in their eagerness to get a line to her, fired the gun as soon as it was ready. The shot missed its mark, either falling short or going wide, it could not be seen which. It was quickly hauled back and the line faked on the sand for another shot. With an increased charge of powder, the second missile passed directly over the vessel, but the line was chafed in two by some part of the rigging over which it was dragged by the shot. The third shot was equally fruitless, the line parting over the vessel. It seems that the keeper erred in using the smallest or No. 4 shot-line, having mistaken, in the darkness, the distance of the vessel from the shore. Had either of the larger sized shot-lines been used, communication would doubtless have been established at once. At about the time the third shot was fired, the crew of No. 7 arrived with the extra boat. It was now seen that the vessel must ere long break up under the terrific strain to which she was being subjected by the tremendous combers which broke against and over her from one end to the other, the masts tottering as though ready to fall at any moment. The crew could be seen clinging to the weather side of the forecastle, peering anxiously towards the shore for help. They were indeed in deadly peril, and the sight nerved the little band of life-savers to extra effort. They realized that whatever was done must be done quickly. Both boats were therefore launched into the angry waters, it being agreed before starting that the crew of No. 8, with their lighter boat, should make a bold dash for the vessel, while the men of No. 7, in the relief boat, should lay to just inside the heaviest line of breakers in reserve. It was an anxious moment for all. To go alongside the wreck would involve the almost instant destruction of the boat. The keeper therefore approached as near as he dared, and shouted for a line to hold the boat up to the sea, which was breaking all about him. With the line thus obtained from the brig, supplemented by skillful use of the oars, the boat was kept in position long enough for the entire crew to be taken off. The boat, nearly gunwale deep with its living freight, was now successfully backed in to the beach, under convoy of the relief boat, the latter remaining near so as to be of service in case of a capsize.

It was a gallant rescue and well and nobly done. The shipwrecked crew were conducted at once to the station (No. 8), where dry clothing and much needed refreshments were at once furnished; the scanty wardrobes of the surfmen being so largely drawn upon that some of the latter were compelled to remain in their wet garments. The brig became a total loss. The crew received shelter and care at the station for three days. Before departing for their homes the officers indited the following letters, acknowledging their gratitude to the Life-saving Service, and extolling the bravery of the two crews in so fearlessly putting off to the rescue at the peril of their own lives:

“LIFE-SAVING STATION No. 8,
“*Outside of Cape Cod, September 20, 1881.*

“To Captains WORTHEN and FISHER,
“*Of the Life-Saving Service:*

“DEAR SIR: I desire to express in behalf of myself and crew the gratitude we feel for the timely and gallant rescue of our imperiled lives from the wreck of the brig Clara J. Adams, which stranded and went to pieces off the back of Cape Cod at midnight, September 19, 1881.

“We realize that but for the brave efforts of Captains E. P. Worthen and crew of Life-Saving Station No. 8, and Isaac Fisher and crew of No. 7, who launched their boats through a high and dangerous surf and rescued us, we should all have found watery graves.

“We take pleasure in testifying to the heroism of these officers and their crews, and to the efficiency of the Life-Saving Service.

“Yours truly,

“M. G. DOW, *Master.*

“JOHN ARMSTRONG, *Mate.*

“A. S. WILSON, *Second Mate.*”

September 19.—A farmer residing about two miles distant from Station No. 2, Ninth District (Salmon Creek, Lake Ontario, New York), brought word to the station that two of his neighbors, also farmers, had been drowned the day previous, while fishing on the lake. He stated that one of the bodies had been recovered shortly after the accident, but that the other had not yet been found. The life-saving crew at once turned out to look for the missing body, and after several hours' search found it the next morning (September 20), soon after daylight, and conveyed it to the home of the deceased.

September 20.—A young man who fell down in a fit upon the beach, while the crew of Station No. 4, Fourth District (Monmouth Beach, New Jersey), were drilling, was restored by their exertions and carried home.

September 20.—At 7 o'clock in the morning, the lookout of Station No. 1, Ninth District, Lake Ontario, saw a schooner standing in for Big Sandy Creek. At the entrance of the creek she hove to, and the keeper of the station, with two surfmen, pulled out to her in the dingey. They found her to be the schooner William Gilbert, bound from Trenton, Ontario, to Woodville, New York, with a cargo of lumber, and that she wanted to be piloted into the river. The keeper boarded the schooner and took her into the entrance of the river, but the water being unusually low she grounded on the bar. As she had no line long enough to reach the shore, the keeper sent to the station for one, which was made fast to the river bank, and the other end taken to the schooner's windlass and hove upon until, with the aid of her sails, she was forced over the bar and enabled to proceed up the river to her destination.

September 20.—The crew of Station No. 2, Tenth District (Point aux Barques, Lake Huron), upon learning that a large quantity of lumber had gone adrift some two or three miles down the lake shore, went at once to the spot and succeeded in recovering about ten thousand feet of it, hauled it out of the water to a safe place, and turned it over to the owner.

September 20.—The steamer Arundell, of Port Huron, bound from Alpena to Bay City, Michigan, with passengers and freight, became partially disabled by the breaking of the cylinder-head and connecting-rod of one of her engines. In answer to her signals for assistance when about three miles northeast from Station No. 5, Tenth District (Sturgeon Point, Michigan), the crew of the station went off to her and brought ashore a message from the captain for delivery at the nearest telegraph office asking the aid of a tug to tow his vessel into port.

September 20.—The schooner Two Brothers, of Milwaukee, Wisconsin, carrying a crew of seven men, bound from Frankfort, Michigan, to Chicago, Illinois, with a cargo of lumber, ran ashore at 7 o'clock in the morning, during the prevalence of thick foggy weather, about four miles north of Station No. 11, Eleventh District (Chicago). She was discovered soon after striking, by the north patrol, and the alarm was given at the station. The life-saving crew turned out as quickly as possible with their boat, and after a hard pull against the strong northerly wind then blowing they reached the vessel in good season, and offered to assist in getting her off. Upon learning that the captain had gone ashore to telegraph for a tug, they pulled in to the beach to await the arrival of the latter, arranging with the men on board to make signal in case they should be needed. The steam-tug arrived soon after noon and pulled on the schooner for about two hours, the life-saving crew in their boat running the necessary lines and carrying messages between the two vessels. It soon became evident that the schooner must be lightened considerably before she would float off, so the tug gave up the attempt for that day and returned to the harbor, the captain and crew of the schooner following soon afterwards in the surf-boat, and landing at Chicago at 4 o'clock. On the next day (21st) the services of two steam-tugs and a lighter were engaged, and after the removal of a part of the cargo the schooner was hauled off without damage and taken into port.

September 21.—The schooner E. B. Fithian, of Camden, New Jersey, with a crew of three men, bound from Hog Island, Virginia, to New York, with a cargo of sweet potatoes, stranded on the south bar of Hereford Inlet, New Jersey, a mile and three-quarters from the shore, and the same distance from Station No. 36, Fourth District (New Jersey). At noon, a few minutes after the accident, she was discovered by the station patrol. The life-saving crew boarded her at once, and assisted at the pumps until she floated off the bar, after which she bore away for Maurice River, Delaware Bay, for repairs, having eighteen inches of water in the hold.

September 21.—Shortly after midnight the Canadian schooner Aurora, of and from Port Hope, Ontario, for Oswego, New York, with a cargo of lumber, in attempting to make the last-named port under shortened canvas, during a fresh northeasterly gale, missed the entrance and drove to leeward, afoul of the new Government pier. The accident was witnessed by the two patrolmen from Station No. 3, Ninth District (Oswego), who hurried to the station and gave the alarm. The life-saving crew at once put out to the assistance of the vessel. It was found on reaching her that she was in no immediate danger of breaking up, and that the best

service they could render would be the immediate procurement of a tug. This was accordingly done, the life-saving crew pulling as quickly as possible back into the harbor, and returning shortly afterwards with a tug, which soon towed the schooner out of her perilous situation and moored her safely inside.

September 22.—As a lady and gentleman named Rutherford, of New York, were out for an afternoon sail in a small yacht called the Gipse, on the Navesink and Shrewsbury Rivers, their boat capsized under the pressure of a sudden gust of wind, and they were thrown into the water. They managed to cling to the boat until the arrival of assistance from Station No. 3, Fourth District (New Jersey), the crew of which witnessed the accident and hastened to the spot. When taken from the water into the surf-boat they were both much exhausted. The life-saving crew conveyed them to the station and made them as comfortable as circumstances permitted, and then returned to the river and towed the capsized craft into shoal water, where she was righted with some difficulty, bailed out, and put in proper trim again.

September 23.—The small sloop-yacht Petrel, owned at Cambridge, Massachusetts, with two persons on board, bound to Marshfield, stranded at quarter-past 7 in the evening, about two and a half miles south of Station No. 3, Second District (Scituate, Massachusetts), and was discovered soon afterwards by the patrol from the station and reported. As the evening was very dark and squally, although the water was smooth, the keeper dispatched two surfmen ahead along the beach, with lanterns, to guide him to the spot where the vessel lay, he starting at same time in a dory, with three others of his crew. Upon arriving at the vessel she was found afloat and at anchor, the wind having shifted and caused her to swing off from the beach. She was leaking badly, however, and nearly full of water. Her two men were then on the beach. They reported that soon after the yacht grounded they let go an anchor to hold her in case she floated off, and then jumping over the side waded ashore, fearing to remain longer on board. It was well the precaution of anchoring had been taken, as she soon afterwards swung off to the full scope of her cable. The life-saving crew went to work and bailed the vessel out and took her round into North River, where she was anchored in a safe place, after which they conducted the two men to the station, furnished them with dry clothing while their wet garments were being dried, and made them comfortable for the night.

September 24.—At noon the crew of Station No. 29, Fourth District (north side of Great Egg Harbor Inlet, New Jersey), observed signals hoisted on two small schooners lying in the inlet, about two miles southwest of the station. The surfmen had noticed them in the same position for an hour or two, and until the signals were made supposed they were at anchor, waiting for a breeze to proceed to sea. The life-saving crew at once launched their boat and went off, finding both vessels on the shoals, having been carried there by the current setting across the channel. The first reached was the Hattie J., of and from Somers Point, New Jersey, for New York, with a cargo of wood. Her crew numbered three men, all residents of Somers Point. She had sprung a leak and was partly full of water. As the tide was ebbing and there was no immediate need of their services, the life-saving crew decided to push on to the other vessel and ascertain her condition, promising to return soon. The second schooner proved to be the J. and C. Merritt, also from Somers Point for New York, with a cargo of menhaden oil. She had the same number of men as the Hattie J. She was lying e

with a good prospect of getting off. The life-saving crew therefore carried out one of her anchors with a hawser attached, and then assisted in heaving taut and getting everything in readiness to float the schooner on the next flood-tide. The keeper then proceeded with his men back to the Hattie J., her position being more critical. It was about 2 o'clock when they got back to the last-named vessel, and her anchor was also carried out the same as the Merritt's. As the flood-tide was now making, and the schooner labored heavily in the breakers, the next move was to throw over the deck-load to relieve her. When this was done they commenced heaving upon the hawser, and by 6 o'clock she was afloat, although water-logged and inside the bar. She had not proceeded far when she rolled over on her side and became almost unmanageable. In this condition the schooner was swept by the flood-tide onto a shoal within the inlet, where she stuck hard and fast. As it was now dark, and nothing further could be done that night, her crew were conducted to the station for shelter. In the mean time the crew of the Merritt had not been idle. With the aid they had received from the life-saving crew in planting an anchor in deep water, it was found a comparatively easy matter, when the tide swelled, to heave their vessel off, after which they put back into the bay to repair damages. Next day (September 25) the life-saving crew assisted in stripping the Hattie J. of her light sails and rigging, and on the day following helped get a schooner alongside, and after rigging the necessary purchases she was hove upright and taken to Baker's wharf for necessary repairs. Her cargo was all lost.

September 24.—On this date the surfman on lookout at Station No. 11, Eleventh District (Chicago, Illinois), reported fire in a pile of cedar logs lying on the opposite bank of the river. Two of the crew were at once dispatched to the spot with buckets, and in a short time they had succeeded in putting the fire out.

September 25.—At 1 o'clock in the afternoon the schooner George F. Carman, of Patchogue, Long Island, whither she was bound, from Haverstraw, on the Hudson, with a cargo of brick, and having a crew of three men, stranded on Fire Island Inlet Bar, about four miles west of Station No. 25, Third District (Long Island). The accident was discovered immediately upon its occurrence, by the man on the lookout at the station, and reported to the keeper. The life-saving crew immediately went off in the surf-boat, and upon arrival alongside the schooner carried out one of her anchors to heave her off by. The tide was ebbing, but as the wind and sea increased very rapidly, and there was danger of the vessel bilging where she lay, the captain decided to throw cargo overboard to lighten her. Meantime the keeper of No. 25 made signal to Station No. 26, west of the inlet, for assistance, which was promptly responded to, the crew of that station at once going off. The two life-saving crews constituted a good working force, and while some of the men threw cargo overboard, the rest manned the hawser, and after six hours' arduous labor the vessel was hauled afloat, in a leaky condition, and taken inside and anchored abreast the station for the night; a sufficient number remaining on board to keep the pumps going, to prevent her from sinking, while the others returned to their respective stations to maintain the necessary patrol of the beach. Being now in smooth water and but a few miles from her destination, the schooner proceeded safely across the bay next morning. But for the timely aid of the life-saving crews she would doubtless have bilged and become a wreck upon the bar.

September 26.—At 7 A. M., the Brig Maria W. Norwood, 477 tons, of

Camden, Maine, whither she was bound, from Boston, in ballast, having a crew of six men and two passengers on board, in attempting to run out of Seal Harbor, Maine, where she had been anchored the previous night, was swept by the current afoul of Burnt Island Ledge, at the entrance of the harbor. As the brig struck heavily upon the rocks in passing over them, the captain at once brought her to an anchor. The lookout at Station No. 5, First District (White Head Island), observing the danger to which the vessel was exposed, reported the fact to the keeper, and the life-saving crew at once went off to extricate her. Although the brig was afloat, the swell was so heavy that she occasionally touched bottom. Prompt action was necessary, and a kedge was therefore carried out into deep water by the station crew, and then, after weighing the anchor, she was warped safely into the channel, clear of the rocks. This done, sail was hoisted and the brig proceeded on her voyage, apparently uninjured.

September 26.—At 3 o'clock in the afternoon the lookout at Station No. 9, Ninth District (Marblehead Point, Ohio), saw a small boat capsize on Lake Erie, about two miles east-northeast of the station and a mile and a half from land. The station crew put off at once to the rescue, the boat proving to be the R. B. Hayes, owned and sailed by William Beatty, of Kelley's Island, Ohio. She had encountered squally, blustery weather, and was *en route* to the above-named place from Sandusky City. After rescuing Beatty, who was clinging to the bottom, the life-saving crew righted his boat and bailed her out, and then after setting the sail and putting everything in order started him on his course for home in good shape.

September 27.—The crew of Station No. 3, Ninth District (Oswego, Lake Ontario), launched the surf-boat and rowed out four miles east of the station to a lighter which was stranded with a load of stone for the new pier at Oswego, and made fast and carried out to a neighboring tug a four-inch hawser which they had brought with them, by means of which the lighter was pulled off without damage.

September 28.—At 11 A. M. the schooner-rigged fishing-boat Whapper Knocker, of Bucksport, Maine, while running for Cranberry Island Harbor, with a load of fish, lost her reckoning in the dense fog which prevailed at the time and drifted into a very dangerous locality among the rocky ledges on the south side of Little Cranberry Island. The two men forming her crew becoming alarmed at sight of the breakers all around them, let go the anchor to prevent her from drifting on the rocks, and sounded their fog-horn for assistance. Fortunately they were within half a mile of Station No. 4, First District (Little Cranberry Island), and the signals were heard by the life-saving crew. The latter quickly responded to the call and proceeded to the vessel in their surf-boat. Being thoroughly familiar with the rocks and currents of the locality, the station crew got the boat under way and towed her out clear of danger and into the harbor, whither she was bound, to the great relief of her crew.

September 28.—One of the patrolmen of Station No. 3, Second District (Scituate, Massachusetts), saw a vessel running too near the beach for safety, and warned her off by burning his red Coston light.

September 29.—Shortly before midnight the schooner William Sturgis, 263 tons register, of and from Chicago, Illinois, for Ludington, Michigan, in ballast, while attempting to enter the last-named port during a strong southerly gale, missed the entrance and drove ashore about four hundred feet north of the harbor piers. The accident was seen to occur by the life-saving patrol, and within twenty minutes after the vessel struck

she was boarded by the crew of Station No. 7, Eleventh District (Ludington), and assistance offered, the keeper proposing to heave the vessel under the lee of the north pier, where the water was comparatively smooth. This the captain declined, his idea being to let the vessel fill with water, and thus steady her and prevent her from pounding to pieces, expecting to pump her out after the abatement of the storm and float her off. He was afraid that should they move the vessel and the wind subsequently shift to the westward she would be more likely to become a wreck by dashing against the pier. He also refused to leave the vessel, and although she bilged right where she lay, he and his men remained on board until after the subsidence of the gale, and then they landed in their own boat. The life-saving crew maintained a watch on the vessel, however, until the people did come ashore. The schooner becoming a wreck, the captain expressed regret afterwards that he had not adopted the course suggested by the keeper of the station, for, as events proved, she would have been altogether safe had that advice been followed.

September 30.—At daylight, the lookout at Station No. 1, Ninth District (Big Sandy Creek, Lake Ontario, New York), reported a small steamer about four miles northwest of the station, drifting before the stiff southeasterly gale then blowing, and apparently unmanageable. The boat was at once launched and the life-saving crew put off to render what assistance was possible. It proved to be the yacht-built steamer E. A. Van Horn, of and for Oswego, New York, from the Saint Lawrence River, with a general cargo. She was a small vessel of but ten tons and had a crew of two men. Her machinery had become disabled the evening previous, and, with no ground tackle on board to anchor by, she was driving northward in the trough of the sea, perfectly helpless. The captain wished to be towed inshore if it were possible, and in case that could not be done proposed to abandon the vessel. The keeper promised to do his best, and taking the steamer's line started with her in tow towards the shore. Upon getting close in, the gale freshened so much that it was deemed advisable to beach her, to prevent her from dashing onto the rocks at Drowned Island, a short distance to the leeward. As soon as she struck one of the life-saving crew was sent to the nearest telegraph office with a dispatch to Oswego for a tug, while the rest returned with the keeper to the station, five miles distant, for lines to hold her until the tug could arrive. The lines were scarcely needed, however, for that purpose, as by the time they got back the vessel had become firmly imbedded in the sand. When the tug arrived, at 4 in the afternoon, her own lines and those of the station were brought into use and an effort made to float the yacht off. It was no easy task, however, and at 8 p. m. they were compelled to suspend operations for the night, the tug returning to port, while the life-saving crew remained a few hours longer to remove all valuables to the shore. This being done, the life-saving crew returned to their station soon after midnight to change their wet clothing and seek much needed rest, two men being hired by the captain to watch the vessel until daylight. At 7.30 a. m. (October 1) the life-saving crew again proceeded to the vessel and got everything in readiness by the time the tug arrived to resume operations. The tug parted the lines several times, but utterly failed to move the yacht. A second tug was therefore telegraphed for and more vigorous efforts made. It was of no avail, however, and the tugs gave up the attempt and returned to Oswego. As the life-saving crew had done all that it was possible for them to do, they also left, reaching the station at near midnight. The vessel had sanded so deeply it was evident the

best plan was to raise her up and construct launching ways under her. This was accordingly done, under contract with parties having the necessary appliances for such work, and then, with the aid of a tug, she was hauled off the beach in due season and towed to Oswego for repairs.

October 1.—The keeper of Station No. 30, Third District (Short Beach, Long Island), saw two boys upset in a small boat in the bay, hurried to their rescue, righted and bailed their boat, and helped them to get home.

October 2.—At 8 A. M. the crew of Station No. 7, First District (Rye Beach, New Hampshire), observed a small schooner-rigged boat adrift, about one mile south of the station, and apparently with no one on board. The keeper and two of his men at once put off in a dory, and upon reaching the boat found her only occupant, a man named Johnson, lying in an unconscious condition. They at once took charge and sailed the boat back into Rye Harbor, where she was made fast and the man properly cared for.

October 2.—The keeper of Station No. 1, Ninth District, (Big Sandy Creek, Lake Ontario), got a message at half-past 9 o'clock in the morning that a horse was caught in the quicksands at the South Wind Gap, and at once went with his crew and a line and succeeded in extricating the animal.

October 2.—At 11 o'clock in the forenoon the schooner *Fiat*, of Sandy Creek, New York, bound from Trent, Ontario, to Woodville, New York, lumber laden, and with one passenger and a crew of four men, grounded upon the rocks of the inner bar at the entrance to Sandy Creek, about half a mile southwest of Station No. 1, Ninth District. The accident was occasioned by the too great draught of the vessel for the depth of water on the bar, she being deeply laden. The life-saving crew witnessed the accident and put off at once to the schooner's relief. There were no lines on board suitable for heaving her off, so the keeper sent ashore for one of the station lines, as on a previous occasion when the same vessel met with a similar accident. The line was at once run to the river bank and taken to the windlass and a strong effort made to heave the vessel off, but without success, it being evident that some of the cargo must be removed to lighten her. The men accordingly discharged a large portion of the lumber, which was rafted alongside, and also carried out an anchor from the stern, and when everything was in readiness they succeeded, after hard heaving and rolling the vessel by shifting the booms from side to side, in working the schooner over the bar and into the river without damage, the time occupied in reaching this result being nearly five hours.

October 3.—At 7 A. M. a person called at Station No. 2, Ninth District (Salmon Creek, Lake Ontario, New York), and reported the loss of a small boat called the *Ada*, and requested that the station crew be on the lookout for it. It appeared the boat had broken from its moorings in the creek during the night and drifted out into the lake before the southerly wind then prevailing and by daylight was out of sight. The keeper promised compliance with the man's request, expressing the belief that if the wind veered the boat could be recovered. Fortunately, the wind canted on shore during the forenoon, and at 4 in the afternoon the missing boat was reported in sight, far away in the offing—too far, in fact, to make it out very distinctly. Three of the life-saving crew at once put off in the surf-boat under sail and recovered the boat, and by 7 o'clock had it safely in the custody of its owner.

October 3.—At half-past 2 o'clock in the morning one of the patrolmen of Station No. 14, Eleventh District (Racine, Lake Michigan), heard

some strange steam-whistling out in the lake, over which a heavy fog was prevailing. The surf-boat was at once launched, and, rowing out in a southerly direction, found the side-wheel steamer *Corona* lost in the fog and unable to find the harbor. Following the lantern in the stern of the surf-boat, the *Corona* was safely piloted in.

October 4.—About 9.30 P. M. the keeper of Station No. 6, Second District (Race Point, Cape Cod, Massachusetts), observed a steamer's lights approaching from the eastward along the coast, apparently very close in. He watched intently for a few moments, and then, becoming satisfied that unless she changed her course she must soon strike the bar, he called his crew and instantly dispatched one man along the beach with a Coston signal to warn her off if possible, while he and the rest quickly followed with the beach apparatus. The wind blew a gale from the northwest and there was a heavy surf breaking upon the shore. By the time the life-saving crew arrived abreast the vessel, then about a third of a mile east of the station, it was found she had anchored right on the bar, about two hundred yards from the beach, and the sea was making a clean breach over her fore and aft. It was also seen that she was a small vessel and that her position was one of great danger. The apparatus was speedily unloaded from the cart and arranged for the purpose of establishing communication, and the keeper was just on the point of firing the gun when the steamer's cable parted and she was hurled with great force ashore, bow on. The state of the sea may be imagined when it is remarked that the vessel almost pitch-poled in the surf, before fetching up. As she came well in, the gun was discarded, and the life-saving crew sent a line on board by means of the heaving-stick. The whip-line quickly followed, and, there being no time to set up the apparatus in the usual way, as the vessel was fast breaking up, the crew, three in number, after making the block fast, attached the line to their bodies, shouted to the life-saving crew to haul ashore, and then jumped overboard and were quickly drawn to the beach through the surf, safe and sound. They were at once taken to the station and furnished with dry clothing and made comfortable. The vessel proved to be the *A. H. Glover*, a small propeller of nine tons, owned in Boston, whither she was bound from Nantucket, Massachusetts. She was shortly a total wreck. The men were cared for at the station until arrangements could be made for their departure for home by rail, two days after their rescue. With the terrible sea running, it would have been almost impossible for the men to have reached the shore without assistance, and all three of them expressed the liveliest gratitude to the life-saving crew, freely stating that but for the aid so promptly rendered they could not have escaped with their lives.

October 4.—At 8 o'clock in the evening the schooner *Moonlight*, of Milwaukee, 777 tons measurement, in entering the harbor of Cleveland, Ohio, with a cargo of iron ore from Escanaba, Michigan, struck and grazed past the end of the west pier, and, thus deflected from her course, came in violent contact with the east pier, where her bow fouled the schooner-barge *J. Godfrey*, and was held there, while the stern swung back against the west pier, the vessel thus lying across the channel and for a time blocking it completely. The crew of Station No. 8, Ninth District, were quickly on hand to render all the assistance possible. A fresh northeasterly gale was blowing and the sea ran very high, rendering the situation of the *Moonlight* critical indeed, as she wallowed broadside to the sea, every roll adding to the danger. In a very short time the bowsprit broke short off at the knight-heads, and immediately after the foremast snapped in twain ten feet above the deck and fell

over the side. A large hole was also stove in the starboard quarter by contact with the west pier, and into the breach thus made the water poured in large volume, threatening to sink the schooner where she lay. If the barge Godfrey had promptly veered her moorings and shifted her berth the Moonlight would have at once swung clear. Instead of this, however, the Godfrey's crew refused for a time to move, despite the urgent entreaties of the captain of the Moonlight and the keeper of the station. Seeing at last that if something was not done soon his own vessel would receive serious damage, the captain of the Godfrey permitted the keeper to cut away the lanyards of her fore-rigging. Thus freed, the Moonlight was swung clear, head up the river, and a tug was enabled to drop alongside and tow her into smooth water above the railroad bridge, the life-saving crew lending efficient aid by running lines, taking in sail, and clearing away the wreck of the foremast and bowsprit. But for the release of the Moonlight, as above narrated, she would have soon sunk where she lay and thus obstructed the channel and prevented the entry and departure of vessels for perhaps several days, until she could have been raised and removed. Considering the size of the vessel and the nature of her cargo, the difficulty of such an undertaking will be readily understood. The labors of the life-saving crew contributed in a great measure to prevent what would have been a serious obstruction to the commerce of the port of Cleveland.

October 5.—The schooner Clement, of Machias, Maine, bound from Jonesport to Rockport with a cargo of wood and piling, encountered, when off Mount Desert, a fresh northerly gale, which split her sails and caused her to spring a leak. In this condition she hauled up for Baker's Island and anchored under its lee with a signal of distress flying. The signal was discovered by the crew of Station No. 4, First District, on Little Cranberry Island, at about 5 in the afternoon, and they at once launched and went off to her assistance, arriving on board at 6 o'clock. Her crew numbered but three men, so the life-saving crew took charge, manned the pumps, and after several hours' pumping succeeded in freeing her of water, after which, at 11.30 P. M., she was got under way and beat up into Cranberry Island Harbor and safely anchored at about 4 A. M. (October 6). The captain of the Clement declared that he should very soon have been compelled to abandon his vessel, but for the timely and energetic assistance of the life-saving crew, in which case she would probably have been totally lost.

October 5.—At 9.40 A. M. the lookout at Station No. 4, Second District (Gurnet Point, Massachusetts), reported a schooner, which proved to be the Winnie Lawry, of Waldoborough, Maine, ashore on Brown's Island Shoals, Duxbury Bay, about a mile south-southwest of the station. It appears the schooner was bound from Poughkeepsie New York, to Boston, with a cargo of molding-sand, and being driven to leeward in Massachusetts Bay by stress of weather during a strong northerly gale, she had sought refuge inside Gurnet Point until the abatement of the storm. The mishap was caused by the ebb tide out of Duxbury Bay, which swung the schooner onto the shoals as she rode at anchor. The life-saving crew went off as quickly as possible, and upon boarding the schooner found it would be useless to attempt to float her off while the gale lasted. The keeper, therefore, prevailed upon the captain and crew to leave the vessel and take shelter at the station until the gale moderated, promising to send to Boston for the assistance of a tug. Upon reaching the station, one of the surfmen was dispatched by land to the nearest telegraph office, at Duxbury, with a message to the underwriters at Boston, reporting the condition of the schooner. The gale abated the fol-

lowing night, and by daylight next morning a powerful steam-tug was on the spot from Boston. The crew were taken back on board the schooner, and in a short time she was pulled off the shoal by the steamer, and then after recovering both anchors, in which the station crew assisted, she was taken in tow to her destination.

October 5.—The schooner *Adelia F. Cohn*, of and from Philadelphia for Richmond, Virginia, with a cargo of coal, had a stormy run down the coast after leaving the Delaware, and when nearing Chesapeake Bay blew away some of her sails and sprung a leak. The gale was from the northeast, and there was a very high sea running. It was between 2 and 3 in the morning when the canvas was lost, the schooner being then about twelve miles off shore from Smith's Island. The leak seemed to gain on them, so the captain concluded to try and beach her to prevent her from sinking. She was therefore hauled up for the land under the double-reefed mainsail and bobbed jib. At 5 o'clock, as the schooner labored in towards the beach, she was sighted by the patrol from Station No. 11, Fifth District (Smith's Island, Virginia), who at once burned a Coston light to warn her of danger. The signal was not heeded, however, and as she continued on it became apparent to those on shore that an attempt was being made to beach her. It was fortunate, as the sequel proved, that the effort failed, owing, probably, to the southerly set of the current, which swept the schooner rapidly to leeward. There was, however, danger that the schooner would strike on the outlying shoals between Smith's Island and Cape Charles. Both anchors were therefore let go when the captain found he could not beach his vessel, and then he hoisted his colors, union down, for assistance. The life-saving crew had watched the movements of the vessel with considerable anxiety from the time she was reported by the patrol soon after heaving in sight at 5 o'clock, and as soon as the distress signal was shown they launched their surf-boat, with the help of the two keepers of the light-house, and went off to the vessel. It was too rough to go alongside, as the sea broke over and around her, and the five men composing her crew were therefore, after some difficulty, taken into the boat from the end of the main-boom. They were at once conducted to the station and cared for. By good luck the schooner outrode the gale, and with the return of moderate weather the next day the life-saving crew took the sailors back on board, assisted in pumping her out and getting her under way, and then, after seeing her clear of the shoals and out of danger, returned to their station, the schooner proceeding safely to Norfolk.

October 5.—The schooner *Thomas J. Lancaster*, of Philadelphia, bound from Boston for Savannah with a cargo of ice, and having thirteen persons on board, including the family of the captain, was wrecked a few miles north of Station No. 18, Sixth District (Chicamcomico, North Carolina), at half-past 3 in the morning during a furious northeasterly gale. [For the particulars of this disaster see page 20.]

October 5.—At 11 A. M., during the prevalence of a heavy gale from the north-northeast, the weather being squally and thick, the lookout at Station No. 20, Sixth District (Little Kinnakeet, North Carolina), sighted a small schooner under close-reefed foresail and jib scudding down the coast before the wind. When nearly abreast of the station she was observed to haul in towards the land, as though it was intended to beach her. The life-saving crew at once started out with their apparatus to her assistance. When near the surf another schooner was seen coming from the northward and also apparently edging in towards the beach. The first schooner, which proved to be the *Charles*, 33 tons

register, of Beaufort, North Carolina, struck about a mile south of the station soon after the life-saving crew got out. She went head on with the seas sweeping her deck from one end to the other, and did not fetch up until almost high and dry. The surfmen pushed forward with all the haste possible, and in a few minutes were abreast of the vessel. She was so well up that one of the surfmen waded out with the whip-line until he was waist-deep in the surf, and then grasping the gear of the martingale managed to climb on board and make the tail-block fast to the foremast, for the purpose of aiding the landing of her crew. Three persons were on board—two men and a boy. They refused to leave the vessel until their effects could be gathered together, the captain descending to the cabin and locking himself in. There was no time for parleying, as the other schooner was fast nearing the breakers and the life-saving crew must proceed to her as quickly as possible. The captain was therefore informed that if he desired the assistance of the station crew it must be accepted at once. This brought him to reason, and he and his crew were soon transferred to the shore and conducted to the station. The *Charles* was from Broad Creek, Neuse River, North Carolina, bound to Baltimore, Maryland, with a cargo of lumber. The captain reported encountering the first of the gale the night previous when to the northward, abreast of Currituck Beach light, and that he had lost his yawl and most of the deck-load, besides springing the fore-gaff. By the time the latter was repaired so as to carry sail on it the storm had increased to such severity that he was compelled to run before it and ultimately to beach the vessel to save himself and crew. The hull of the schooner being uninjured the captain subsequently contracted with a party to haul her across the beach and launch her in Pamlico Sound, and thus saved his vessel, he and his crew receiving shelter at the station while the work was going on.

October 5.—By the time the crew of the *Charles* were safely ashore, the schooner which the life-saving crew had seen coming down the coast astern of her had also stranded about a quarter of a mile south of the station. She struck the bar at about noon. The life-saving crew (No. 20, Sixth District) hurried towards her as quickly as the bad condition of the beach would permit, the water in some places being almost knee-deep at the foot of the beach hills, well above ordinary high-water mark. To add to the difficulties of travel the wind blew a furious gale right in their teeth. As afterwards learned, the schooner was the *H. W. McColly*, of New York, 111 tons measurement, bound from Broad Creek, Neuse River, North Carolina, for Philadelphia, with a full cargo of pine lumber. Her crew numbered five men, all told. Like the *Charles*, she had encountered the first outburst of the gale the previous night, when far to the northward, and by morning had lost most of her sails, part of the deck-load, and was leaking badly. In this condition she was run ashore, having scudded before the gale until it became no longer safe to do so; her captain, from his knowledge of the coast and of the existence of life saving stations, realizing that it was the only chance he and his men had for their lives. The schooner brought up on the outer bar, about two hundred yards from the beach. She lay stern to the sea, which at once commenced breaking over her with such irresistible volume that the crew were compelled to take to the rigging for safety, the captain ascending at the main while the rest went up forward. By the time the life-saving crew arrived the sea and current had cut the vessel's stern around off-shore. The wreck-gun was soon placed in position and fired, the shot lodging the line across the end of the jib-boom. Watching their opportunity between the seas the men in the fore-rigging

quickly descended and went out on the boom and secured the shot line, and by that means, after considerable difficulty, owing to the action of the current upon the lines, succeeded in getting hold of the whip, the tail-block of which they made fast to the flying-jib stay. The hawser was then sent off, and also made fast above the block. At this moment the crew of Station No. 21 arrived upon the scene, and with their assistance the hawser was quickly tautened, and everything arranged in working order for bringing the people ashore. While the life-saving crews were hauling the breeches-buoy off, however, an accident occurred which, as events proved, nearly resulted fatally. The schooner had during this time gradually swung around until her head pointed to the northward, thus bringing the jib, which remained set, flat aback. This had the effect of canting her bow off-shore and throwing her stern towards the beach, thus fouling the lines. The strain was too much for the hawser, as it stretched and surged, for after the men on the beach had slacked as much of it as they dared without letting go altogether it snapped in twain, the sudden jerk throwing the mate from the jib-boom into the surf. The man was at once swept by the current to the southward, along the shore. Seeing his peril, three surfmen quickly donned their cork life-belts and followed down the beach to a point some three hundred yards distant, where, by venturing out until the surf actually broke over their heads, they succeeded in reaching him and bringing him safely ashore. He was pretty well exhausted when rescued but stoutly refused to go to the station for shelter until he could see his shipmates also safe on land. The schooner once started from where she first struck now began working along the bar to the southward and ere long the tail of the whip-block also parted, thus for the time completely severing connection with the beach. The life-saving crews quickly hauled the lines out of the surf, and after clearing them of turns and kinks reloaded the cart and moved along abreast of the schooner, watching an opportunity to again use the gun. It soon came and the line was once more dropped within reach of the people on board. At this time the schooner was lying parallel with the beach, head to the northward, having turned completely around since leaving her first position. The whip was again hauled off and the tail-block made fast as before, to the flying-jib-stay. When this was done the beachmen, as a precautionary measure, sent off four life-preservers. Three of them were secured and put on by the steward and two seamen, who were thus made comparatively safe. The other life-preserver fouled in the wreckage alongside and was lost, leaving one man, the captain, without any. It was extremely fortunate that even three of the belts reached them, for they were scarcely in their possession when the schooner again swung around with the same result as before, viz, the parting of the line. At the time it broke one of the sailors had just started in an attempt to reach the beach hand over hand on the line. He was of course thrown into the surf, but by great good luck managed to retain his grasp until quickly drawn ashore by the life-saving crews. He was slightly injured by contact in the surf with floating lumber from the deck-load, but a little brandy from the medicine-chest soon revived him. As soon as the lines were rearranged, another shot was fired. The schooner changed her position so rapidly, however, that the line fell beyond reach of those on board. It was quickly hauled back and the fourth fire dropped it once more over the head stays. In the mean time the vessel was fast becoming a wreck. The stern had been burst in and the water alongside and to leeward was thickly strewn with lumber and wreck stuff. Scarcely had the remaining men

in the rigging secured the shot-line for the third time when it was cut by contact with floating wreckage. With praiseworthy perseverance the surfmen again hauled back the broken line, and, after changing it end for end, again shot it over the vessel's jib-boom. The bight of it, as the current swept it alongside, was secured by the sailors in the rigging, but they were so benumbed and stiff, and in such an awkward position, that their effort to haul out the whip-line failed. As the situation became more and more critical, the two men who had life-preservers on resolved to attempt swimming to the beach, leaving the captain alone in the rigging. They had scarcely left her when the schooner fell over on her side. It should be remembered that during all this time she had kept steadily in motion, preserving the same relative distance from the shore, with a mad whirl of waters between, which would have swamped any boat attempting to leave the beach. The two men, buoyed upon the crests of the waves by the cork-belts, gradually worked themselves shoreward and were at last thrown within reach of the surfmen, who, joining hands, waded out as far as possible, grasped them and carried them to the beach hills clear of the swash of the water. One of them was insensible, but by the energetic application of the method in vogue in the Service for the resuscitation of apparently drowned persons he was soon brought to and taken to the nearest house for shelter. All but one, the captain, were now safe. He clung to the rigging, anxious, but evidently with stern determination, although the very loneliness of his position, surrounded by the terrible waters, was in itself appalling. At about half-past 3, just as the life-saving crews were about to fire again in the hope of placing the line within his reach, to haul him ashore by, the main-mast broke off and he was thrown into the surf. He exhibited rare coolness and presence of mind, and made a gallant and successful struggle; for quickly disengaging himself from the wreckage he clambered to the rail which was out of water, and thence by degrees reached the rigging of the foremast, which still remained intact. This movement was watched by the surfmen with intense interest, and as soon as he was again ensconced in the rigging the sixth and last shot was fired. At this juncture the man lost his hold and was swept out of sight, apparently under the wreck. His disappearance was but momentary, however, for to the great relief of those on the shore, he quickly reappeared on the surface amidst the fragments of timbers and planking, and catching at the first piece within reach flung his arms and legs around it with the grip of death or despair. By great good luck the piece of timber to which he clung was cast shoreward by the sea, and willing hands were ready to grasp him as soon as he was within reach. When drawn ashore he was insensible. He was at once taken to a place of shelter and by proper manipulation and the administration of the usual remedies was soon brought to consciousness.

Darkness had now overtaken them, and as soon as the men were able to travel the rescuers wended their way to their respective stations, the wrecked crew reaching No. 20 with the men of that station at about half past 8. Here, after changing their wet garments and partaking of warm food, all hands except those whose turn it was to patrol the beach, sought relief in much-needed rest after the excitement and exposure of such an eventful day. The crew of the McColly remained at the station several days until able to leave for their homes, their unfortunate craft having become a complete wreck. The crew of No. 20 thus had eight shipwrecked sailors on their hands, those of the Charles remaining until their vessel was floated off. It should be mentioned that one of the surfmen of No. 20 had a narrow escape while wading into the

surf to the assistance of one of the sailors. He was knocked almost senseless by a piece of timber, and it was only with considerable difficulty that he was rescued by his comrades. The action of the crews of these two stations (Nos. 20 and 21) on this occasion was certainly very creditable, and to their perseverance under adverse circumstances, coupled with great gallantry in wading out into the surf at the peril of their own lives, is due the saving of all those on board the McColly.

October 5.—At 3.45 A. M., during the prevalence of a hard northerly gale, the Canadian schooner Richardson, of Kingston, Ontario, in attempting to run into Oswego, whither she was bound from the first-named port with a cargo of barley, mistook the lights, and fouled the west pier, where she quickly became a wreck. The accident was witnessed by the patrolmen from Station No. 3, Ninth District (Oswego, Lake Ontario, New York), and upon the alarm being given at the station, the surf-boat was launched and the life-saving crew proceeded at once to the vessel. They found that the crew, six in number, had just been taken off by a steam-tug lying near. The sea was so heavy that the schooner had already commenced breaking up; the life-saving crew therefore remained in the vicinity and saved all the property they could, only ceasing their labors when there was scarcely a vestige of the vessel left.

October 5.—The crew of Station No. 16, Eleventh District (Sheboygan, Lake Michigan), spent most of the day in ineffectually grappling for the body of Edward M. Brown, a watchman on the Government pier, who was supposed to be drowned, as a boat belonging to him was found floating about the harbor, the man being missing. On October 26 following a body was found thrown up on the beach three-quarters of a mile south of the station, which was identified as that of the unfortunate watchman.

October 6.—At daylight the crew of Station No. 1, First District (Carrying Point Cove, West Quoddy Head, Maine), sighted a schooner at anchor some four miles east-southeast of the station. She did not appear to be in distress, and as no signal was made it was supposed she had simply anchored to await the abatement of the wind, which at the time was blowing strong from the northwest. The keeper ordered a close watch on the schooner, in case she should signal for assistance. At 11 A. M. the lookout observed a boat leave her side and attempt to reach the land, but the gale was too much for it and the effort had to be abandoned, the boat returning to the schooner. Judging from this that there must be something wrong it was determined to board her. Upon arriving alongside the keeper found the schooner to be the Eclipse, of Eastport, Maine, bound from Dennysville to Rockland, with a cargo of wood, and that she had encountered a heavy squall the afternoon previous, which split her sails and started her leaking badly. In this condition they had anchored her during the night, about two miles from the land, her crew, three in number, being almost exhausted by their efforts to keep her free. The life-saving crew at once turned to and pumped her out and made temporary repairs on the sails, and then worked her up into a safe harbor, where she was enabled to repair damages and obtain new sails before proceeding on her voyage.

October 6.—A barge getting too close to the bar east of Station No. 12, Tenth District (Sucker River, Lake Superior), was warned out of danger by the red Coston light of one of the patrolmen.

October 7.—As the Vixen, a small sloop belonging at Bay Shore, Long Island, New York, was passing in through Fire Island Inlet from a fishing trip outside, the man on board imagined he saw a school o

fish just beyond the bar. Being desirous of obtaining a full fare he put about at once, and while recrossing the bar, where the sea was very sharp, the boat capsized. Fortunately the tide was flood, and the man managed to cling to the boat until it was cast upon the beach near the inlet, half a mile west of Station No. 25, Third District. The accident was witnessed by the lookout at the station, and the life-saving crew at once turned out and hastened to the man's assistance. The use of the surf-boat was unnecessary, as the water was shoal enough for them to wade out to the capsized craft. The man was taken to the station and furnished with dry clothing and refreshment. The life-saving crew then returned to the beach with the necessary gear, and after several hours' hard work hauled the boat to a safe place.

October 7.—The fishing schooner *Lucy*, of Green Point, Long Island, New York, with a crew of two men, while cruising off Sandy Hook, New Jersey, stood too close in to the beach, and in attempting to go about, mistayed and grounded on the bar. The accident occurred at about noon, nearly opposite Station No. 1, Fourth District (Sandy Hook). The life-saving crew were promptly on hand with their boat, and after carrying out an anchor from the vessel and putting two of their number on board to assist her crew in heaving upon the warp, they pulled off outside of her with a tow-line, and by watching their opportunity when the seas lifted her, soon succeeded in floating the schooner off without damage, before she had time to become imbedded in the sand. The captain was very grateful for the timely aid of the life-saving crew, as without it his vessel would soon have bilged and become a total wreck.

October 8.—The schooner *Northern Light*, of Booth Bay, Maine, with a crew of two men, while on a voyage from Calais, Maine, to Salem, Massachusetts, laden with lumber, put into Seal Harbor, between White Head and Spruce Head Islands, during the prevalence of a fresh southwesterly gale. After coming to, the captain found he had anchored in shoal water. In attempting to change his berth the vessel grounded on what is known as Allen's Rock. The accident occurred at about 5.30 P. M., and was seen and promptly reported by the lookout at Station No. 5, First District (White Head Island, Maine). The life-saving crew quickly went off in their boat to the schooner's assistance, and when the tide had risen sufficiently forced her off the rock and piloted her to a good anchorage, where they left her safe and snug.

October 8.—At 1 P. M. the keeper of Station No. 1, Second District, (Plum Island, Massachusetts) discovered a small sloop yacht laboring in the surf about two miles south of the station. He and his crew at once proceeded to the spot in a dory and found the sloop full of water, and the four men who had been on board of her safe upon the beach. It appeared they were bound to Ipswich from Newburyport, and in running down the coast had, without a thought of the danger of such an undertaking, attempted to beach their vessel so as to enable them to land. Upon reaching shoal water and finding their yacht was rapidly filling, the men scrambled ashore as quickly as possible. The life-saving crew towed the yacht back abreast of the station, and there, with the aid of tackles, hauled her above high-water mark for necessary repairs, she having been quite badly strained in the surf.

October 8.—The keeper of Station No. 22, Sixth District (Creed's Hill, North Carolina,) had a good box made and buried the dead body of a man which one of the patrol had found three fourths of a mile north of the extreme point of Cape Hatteras—probably one of the sailors of the *Thomas J. Lancaster*, wrecked October 5.

October 8.—At half-past 4 o'clock in the morning, a northeast storm prevailing at the time, the brig Ramirez, of New York, bound from Apalachicola, Florida, to Aransas Pass, Texas, with a cargo of railroad ties and having a crew of eight men, stranded at the north end of Mustang Island, one-half mile east of Station No. 5, Eighth District (Texas), about one hundred yards from the beach. She was attempting to enter the pass at the time she went ashore. The disaster was witnessed by the station patrol and immediately reported, and ten minutes after 5 the life-saving crew reached her in the surf-boat. There was a heavy sea running, and it was not without some difficulty that they were enabled to convey the crew safely ashore. The men received shelter at the station until arrangements could be made by the captain for their transfer to the main-land. The cargo was subsequently saved, but the brig became a total loss.

October 8.—At 11 o'clock at night one of the surfmen of Station No. 11, Eleventh District (Chicago), recovered a yawl belonging to the Illinois Central Railroad Company, which had got adrift, and returned it to the company.

October 9.—One of the patrolmen of Station No. 22, Third District (Patchogue, Long Island), warned off with his Coston light a steamer standing into danger.

October 9.—The sloop Mary Ann, of and from Cobb's Island, Virginia, with a crew of two men, bound out of Ship Shoal Inlet, at the southerly extremity of the island above named, on a trip to Sea Side, eastern shore of Virginia, while hugging the shore too closely, ran aground on the point about three hundred yards to the southward of Station No. 10, Fifth District. The accident was discovered and reported by the station patrol soon after its occurrence, and the life-saving crew quickly responded, and proceeded to the sloop's assistance. She lay in the surf pounding heavily and quite near the beach; near enough, in fact, for them to wade out to her without difficulty. After planting her anchor off-shore in deep water, and putting two men on board to aid her crew in heaving upon the cable, the rest of the life-saving crew standing waist-deep in the water gradually winded her around head to the sea, and then, by watching their opportunities, and pushing when the seas lifted her, moved her a foot or two at a time, until completely afloat. As she was now leaking quite badly and unfit to proceed to sea, the life-saving crew completed their good work by taking her back into the harbor for repairs.

October 9.—The crew of Station No. 21, Sixth District (Big Kinnakeet, North Carolina), were engaged in making a coffin for the body of the little child lost from the Thomas J. Lancaster, on October 5, and found two miles south of the station. When coffined it was carried by some of the men to its mother, then lying ill at Station No. 18.

October 10.—At half past 8 o'clock in the evening one of the patrolmen of Station No. 16, Sixth District (Bodie's Island, North Carolina), saw a vessel near the breakers, and warned her off by burning a red Coston light.

October 11.—At 5 o'clock in the afternoon, the light-house buoy-tender Iris, while setting a buoy on Norton's Ledge, caught the chain mooring of the old buoy in her propeller and became perfectly helpless. The crew of Station No. 1, First District (West Quoddy Head, Maine), came to the rescue, and after failing to procure the assistance of a tug, launched the surf-boat, got the lines onto the buoy, and helped to clear and unshackle it, so that the tender could work her engine, which being effected, she steamed into harbor without further aid.

October 11.—At half past 4 o'clock in the afternoon the schooner Wm. P. Hood, of Somerset, Massachusetts, from Boston to Philadelphia, in ballast, and having a crew of nine men, in entering the Delaware River, endeavored to cross the rips at Cape May Point and grounded, the tide at the time being very low. The accident was witnessed by the crew of Station No. 40, Fourth District (Cape May, New Jersey), who at once went out in the surf-boat and assisted in getting the schooner afloat uninjured, after which the keeper piloted her safely into the channel and she proceeded to her destination.

October 11.—During the night one of the patrolmen of Station No. 7, Fifth District (Assateague Island, Virginia), sighted a vessel standing in towards Ship Shoal nearly abreast the station. He ignited his red Coston signal to warn her off, and the vessel at once went about in time to escape stranding on the shoal.

October 11.—At 10 o'clock at night the wind was blowing a gale, and the schooner James G. Gilmore, of Cleveland, Ohio, loaded with six hundred tons of limestone, showed a torch as a signal for a tug. One of the patrolmen of Station No. 10, Eleventh District (Saint Joseph, Lake Michigan), endeavored to get the captain of the tug to go out to her, but failed. The schooner at nearly midnight attempted to make the harbor without a tow, under foresail and staysail (all her other canvas having been carried away outside) but missed the entrance and went north of the north pier, fortunately close in, so that she got out a line, which the two patrolmen of the life-saving station, who were on the pier, at once made fast, thus checking the headway of the vessel before she went hard aground. One of the patrolmen then rowed the captain across the river, where he procured a tug, which arrived at 2 o'clock in the morning and took her in tow.

October 11.—The crew of Station No. 17, Eleventh District (Two Rivers, Wisconsin), turned out and spent the afternoon in helping to move a scow and pile-driver away from the heavy surf up the river to a place of safety.

October 12.—At 2 o'clock in the morning the schooner J. M. McInnis of and for Corpus Christi, Texas, from Calcasieu, Louisiana, with a cargo of lumber, stranded on Matagorda Island, about half a mile southeast of Station No. 4, Eighth District (Texas), at a point just inside of, Pass Cavallo Bar. She was sighted under way rather close in-shore, at 8 o'clock the evening previous by one of the surfmen of the station as he passed along the beach on patrol. The man attempted to warn her off by swinging his lantern, but instead of changing her course and standing off-shore she came to anchor and soon afterwards extinguished her lights. The patrolman perceiving nothing amiss proceeded on his way, and upon returning over his beat saw her lying in the same place. He reached the station at near midnight and reported the facts to the keeper, who instructed the next outgoing patrol to keep a sharp lookout on the vessel. She remained in plain sight at anchor until the moon became obscured by clouds, when she was lost to view in the darkness. Nothing appeared to be wrong, and as no signal was made, the patrolman passed on to the southern limit of his beat. Upon returning, however, he was astonished to find that she had dragged her anchors, and was in the surf within a few feet of the Government breakwater, and the crew of four men ashore, they having swung themselves off the end of the flying jib-boom onto the breakwater and thus reached the beach without trouble. He at once aroused his comrades at the station, but when the life saving crew arrived the captain declined their proffer of assistance. When, however, the prospect of saving his vessel became

doubtful, he was very glad of their aid in the efforts to float her and in removing the cargo, all of which was saved. It was finally determined to make extensive repairs on the vessel as she lay upon the beach, the work progressing so slowly that it was not until September 4, 1882, that it was completed and the schooner in readiness for launching. On that date the station crew again offered their services, and taking advantage of the extra high tide caused by the northeasterly gale then prevailing, they succeeded at 2 o'clock in the morning (5th), after a few hours of arduous labor in getting the schooner once more afloat, both her anchors being lost in the operation by the parting of the cables. Unfortunately the rigging had been neglected while the vessel was undergoing repairs, and as soon as a strain was brought upon it, when the schooner filled away under her canvas the main-shrouds gave way and the mainmast was sprung about twenty feet above the deck, thus crippling the vessel. In this predicament, with the gale then blowing and a high sea, it was impossible to work up into the pass, and there was no alternative but to bear away for Aransas Pass, some forty-five miles to the leeward, where they arrived at 2 o'clock in the afternoon, after a stormy passage. After the life-saving crew had assisted in procuring new ground-tackle for the schooner and mooring her safely under the lee of Mustang Island, they returned to Pass Cavallo the next day on a schooner bound up the coast, reaching their station at 9 o'clock in the evening, after an absence therefrom of forty-eight hours.

The following letter was afterwards published in the Cuero (Texas) Bulletin :

"To Captain Jas. Hill and crew of the United States Life-Saving Station at Saluria, and a pilot in charge :

"GENTLEMEN: The undersigned, for himself and in behalf of the agent and owner of the schooner called the J. M. McInnes, of Corpus Christi, most respectfully tenders his sincere thanks for the prompt and valuable assistance rendered during the storm that prevailed on the night of September 4, 1882, in hauling from the beach near Pass Cavallo, the stranded schooner herein named, and especially for the unavoidable risk of life and privation endured whilst beating off a lee shore and finding a port of safety in Aransas.

"Very respectfully,

"JAS. MCCOPPIN.

"INDIANOLA, TEXAS, *October 16, 1882.*"

October 12.—At 11.50 A. M. the schooner A. Boody, of Detroit, Michigan, with a crew of three men, bound from Black Rock to Buffalo, in charge of the tug Mollie Spencer, parted her hawser, and before she could be stopped drifted down on Horseshoe Reef, at the head of Niagara River, three-quarters of a mile from the shore, and about a mile and a half from Station No. 5, Ninth District (Buffalo, New York). The accident was seen by the station lookout on duty at the pier, and upon his giving the alarm the life-saving crew at once pulled out to her assistance. On reaching the vessel and finding that both her anchors were down, and that she was thus held upon the reef, the life-saving crew veered away the cables and allowed her to drive safely over the rocks into deep water, after which they ran her hawser to the tug, and, when all was in readiness, slipped both anchors, and enabled the tug to tow the schooner safely to her destination.

October 15.—At about half past 3 in the afternoon, as three small vessels were running in over Absecon Inlet Bar, New Jersey, from the

fishing-ground off Atlantic City, one of them, the *R. M. McCristal*, a cat-rigged boat, with three men on board, capsized when about a mile and a half east-southeast of Station No. 27, Fourth District (Atlantic City, New Jersey). The wind was fresh from the southward, and upon reaching the bar under a press of sail, the boat had encountered a short ngly sea, caused by the tide setting counter to the wind, which threw her on her beam ends. The station crew were watching the movements of the vessels at the time, and upon witnessing the accident they immediately put off to the assistance of the people who were now struggling in the water. By the time they reached the *McCristal*, however, the three men were safe on board of the sloop *Elwood Becker*, having been picked up by that vessel very soon after the *McCristal* went over. The life-saving crew, therefore, went to work and cleared away the mast and sail from the capsized boat and put them on board the sloop *Tillie Covert*, the other vessel in the vicinity at the time of the accident, and then, with the latter's assistance, towed the *McCristal* safely into the harbor, where she was delivered to her owner, the principal loss being that of her cargo of fish, which was washed out when she overset.

October 16.—The body of an unknown man, much decomposed and mutilated, having evidently been in the water for a fortnight, was found on the beach between 1 and 2 o'clock at night by one of the patrolmen, about two miles from Station No. 14, Third District (Good Ground, Long Island), and brought to the station and the coroner summoned.

October 16.—The British ship *Fernglen*, of Sunderland, England, laden with clay ballast, and bound from Wellington, New Zealand, to Portland, Oregon, went ashore about 4 o'clock in the morning on Clatsop Spit, off Cape Disappointment, Washington Territory, about two miles from land, and four miles southeast by east of Life-boat Station No. 3, Twelfth District. There was on board a crew of twenty men. The accident appears to have been due to ignorance of the coast. At the time of stranding the weather was cloudy, with a good southeast breeze and an ordinary surf, although the wind strengthened and the sea rose soon afterward. The vessel was discovered at the station by daybreak, lying with sail on her to help her off, and the keeper (Alfred T. Harris) got together with considerable difficulty a crew of volunteers, some of them citizens and some soldiers from Fort Canby, and at low water, in the beginning of the afternoon, launched the life-boat and went out to her. After a very hard pull, through at least a mile of surf, the life-boat reached the vessel. When within half a mile of her, her captain hoisted a signal of distress, thinking, as the breakers at that point began to be the most terrible, that the life-boat crew would quail and relinquish effort for his relief, and imploring them thus not to desert him. They continued on, and a tug also hove in sight, which caused the lowering of the distress signal, and soon after the life-saving crew came up alongside, and Keeper Harris boarded the ship. The captain appeared to be confident of the vessel coming off the spit, for he positively refused to leave her, and seemed mainly desirous of having a good pilot on board in those unknown waters, strenuously urging the keeper to remain with him. This the keeper offered to do upon the condition of the life-boat being hoisted out of the surf, which the captain, however, did not want to have done, on the ground that the boat would hamper the movements of the vessel, and tried to induce Keeper Harris to remain on board and let his crew return without him. The keeper, being responsible for the safety of the crew, refused, and, after remaining on board a couple of hours, left the vessel, first giving the captain his course in case he got afloat again, and arranging for the display of a bright light in the miz-

zen so long as all went well, to be changed to a red light in case of danger. The life-boat crew then rowed over to Fort Stevens, on the Oregon shore, and had the sentry instructed to keep a lookout through the night for danger signals from the ship; none, however, were shown.

By 9 o'clock the next morning, the wind arose and blew a furious gale throwing down chimneys and uprooting trees, and accompanied with thick fog and very heavy rain and sleet. The entrance to the Columbia River, between the shores of Washington Territory and Oregon, has a submarine formation of spits and shoals, intersected by two deep channels, and for a radius of five or six miles between Cape Disappointment and Point Adams this formation causes a mass of breakers, which were now lashed by the wind into indescribable turbulence, the whole sea as far as the eye could reach being alive with tumbling foam. To launch a boat in this condition of the surf and sea was impossible. The tempest continued all that day and through the night without abatement.

At half past 6 on the morning of October 18 Keeper Harris sighted the ship for a moment through the driving sleet. She had driven in some distance during the night, and still had sail on her, about the same as she had had two days before. The keeper had meanwhile procured two experienced boatmen from a watering-place named Illwaco, some miles up the cape, which, with the boatmen he could procure from his own neighborhood, gave him a crew of only six. He could have got soldiers from the fort, but the dangerous state of the sea made it desirable to man the boat only with surfmen. As the storm had somewhat abated, he determined to start out in the life-boat with what men he had, his intention being to run over to Fort Stevens, on the Oregon shore, where there was a prospect of procuring two more surfmen. The launch was accordingly made, the life-boat being taken in tow by the tug Brenham. There was a lull in the wind as the life-boat held its way in the wake of the tug through the tremendous sea, and in running across the south channel, near the Oregon shore, the thick atmosphere cleared a little and the crew caught sight of the Fernglen lying on her beam ends. The cessation of the wind made Keeper Harris determine to endeavor to reach the ship now, and after getting as near the shoals that border the south channel as the tug dare take him, he let go the tow-line, and the life-boat began to drop down toward the wreck. As the life-savers drew near, they could see more distinctly the ship heeled over on her starboard side, her masts in the water, and her company of twenty men clinging to the rail on her port quarter, well away from the sea, and secure for some time. Among the group the captain and mate could be recognized.

The keeper swung his hat to the sailors, and they returned the signal and seemed to be in good spirits. Suddenly, when the life-boat had got within about two hundred yards of the wreck, the wind began to blow as hard as ever, and as it was from the southeast, right in the teeth of the advance, progress was impossible, and the life-boat, beaten back, dropped away to the tug and was again taken in tow. The tug towed the boat about two miles, and as much to windward as was possible in so fierce a gale, and the life-boat then hoisted sail, let go her line, and again bore down for the wreck. When as near as it was safe to run, the sail was lowered and the men took to the oars. A desperate struggle to reach the vessel now began. It was a chop sea, the waves leaping and spouting their foam high in the air, and their tops incessantly broken off and scattered by the furious wind, so much of them showering upon the devoted life-boat crew that the men, toiling at their oars,

hip-deep in the water which half filled the boat, were deluged with a raking fusillade of spray, which drove without intermission straight in their faces and assailed both breath and sight, the keeper especially being so choked and blinded by the fierce rain that he began to be unable to manage the steering-oar. Aware at the same time that his men were fast giving out, although there were none better, as he reports, both for strength and skill, he was forced to accept repulse and bear away again for the tug. The life-boat this time had got nearer to the wreck than before—so near, indeed, that the sailors on board had tried to float out to her crew lines buoyed on cork fenders, with the view of aiding them to approach; and before leaving, the keeper repeated signals previously given them, to the effect that he intended to renew his attempt to get near the wreck from the windward. The tide was then at flood, and, knowing that the ebb would run the sea down, he made sure of reaching the ship at the next effort. The life-boat dropped out to the tug, which gave the crew her line, and towed them to Fort Stevens, where the keeper expected to be able to augment his crew. This tow, like the others of that day, was, so the keeper states, frightful. The boat being a life-boat, and therefore unsinkable, bowed along, diving as she went, into the successive seas of the channel, and all but drowning the men on board. The crew, besides, were in their shirts and stockings, being thus stripped of all impediment to free action in the event of a capsize, and as it took some time to reach the fort, they were all blue and stiff with cold by the time they arrived. At the fort the keeper engaged another man, the only one available, and got a bottle of brandy, part of which he served out to his frozen crew, reserving the remainder for the weakest men on board the ship.

At 1 o'clock in the day the ebb had run the sea down considerably, and although the water was still enormous the life-boat started away again under her foresail, ran up well to windward, and bore down for the wreck. The whole tremendous scene was veiled in fog and driving sleet, and the situation of the *Fernglen* was for a long time a matter of guess-work; but at length the life-boat crew sighted the bottom of the hull turned up toward them, and drove the boat straight for it. As they drew near they dropped the sail and took to the oars. It was observed then that the vessel was broken in two amidships. The life-boat anchor was let go and her crew hailed the ship, all together, several times, but got no answer. Surprised at the silence, they slacked down under the stern near enough to have jumped aboard, and to their utter astonishment found that the sailors were gone. A crazy freak would seem to have seized them, and they had left the ship in a whale-boat. Presently they were caught sight of, just in time to avert their destruction, as they were about entering the breakers on the other side the channel below Sand Island. The keeper instantly signaled the tugs (two or three of which were now to leeward), and they answered by blowing their whistles and starting in pursuit of the sailors, whom one of them presently overhauled and took on board. Their safety, therefore, was, after all, owing to the presence of the life-boat crew, whose intervention prevented the fatal consequences which would in all probability have followed their departure from the vessel. This was the substantial end of a hard and dangerous adventure. After finding that the twenty sailors were on board of the tug, the life-boat crew took a line from her and were towed into Astoria, returning the next morning (October 19) to the station. The ship was of course lost.

October 18.—The schooner *Forest Queen*, of Boston, with a crew of four men, while running into Plymouth Harbor for shelter during a north-

erly storm of wind and rain, grounded upon Brown's Island Shoals, about a mile south by west of Station No. 4, Second District (Gurnet Point, Massachusetts). The accident occurred at 3 in the afternoon, and the life-saving crew, one of whom saw her strike, at once put off to her assistance, taking with them a hawser and a kedge anchor. On the way out to the vessel the kedge was dropped in deep water and the hawser which was attached thereto taken on board, with the view of heaving the schooner off. The captain of the schooner, although unacquainted with the locality and quite ignorant of where the best water was to be found, objected to the course proposed by the life-saving crew and insisted upon attempting to haul her off in another direction. Although the station crew were as thoroughly familiar with the shoals and dangers of the locality as it was possible for them to be, they acquiesced in the captain's wishes, and leaving their own anchor where it lay carried out one of the schooner's anchors in the direction desired by the captain and endeavored to heave her off. The attempt failed, and the anchor was shifted a second and a third time, at the captain's behest, with equally poor success. It was now getting late and the situation was becoming serious, and the captain began to realize that men whose whole lives had been passed in that locality should know better than he the exact configuration of the shoal and where the best channels were. He therefore resigned the direction of affairs to the keeper, who lost no time in laying a kedge to re-enforce the one originally planted on his way out to the schooner, and in a very short time he and his men had the satisfaction of getting the vessel afloat and anchoring her in five fathoms of water, where the holding ground was good and the vessel perfectly safe. It was well she came off thus the same day, for by daylight next morning the shoal was one mass of breakers, and the vessel, an old one, would have become a total wreck.

October 18.—One of the day patrol of Station No. 2, Third District (Point Judith, Rhode Island), discovered through the dense fog prevailing a small steam-yacht, running directly for the beach, and already so near that a stone could have been thrown on board. By blowing a shrill whistle and shouting, the patrolman made her navigators understand their danger, and the yacht steamed off-shore.

October 18.—At 5 o'clock in the afternoon the schooner Fiat, of and from Oswego for Woodville, Big Sandy Creek, Lake Ontario, New York, with a general cargo, and having a crew of four men, grounded on the inner bar at the mouth of the creek. The mishap was witnessed by the crew of Station No. 1, Ninth District, at the east side of the entrance, and they at once put off in their boat to the schooner's assistance. The keeper finding she had no line sufficiently long for use as a warp to the river bank, sent back for one of the station lines. This was at once made fast on shore and hove taut, and then the life-saving crew went to work lightering the cargo, and between that and heaving on the line they succeeded, after several hours' hard work, in getting her safely over the bar and into the river, it being near midnight when they returned to their station.

October 19.—At 11 o'clock in the forenoon, the schooner Lizzie, of Machias, Maine, bound from Two Rivers, Nova Scotia, to New York, with a cargo of timber, which had put into Quoddy Roads for a harbor the day previous, during a heavy easterly gale with thick weather, parted her cable and drove up into Quoddy Bay, where she came to with her light anchor and hoisted a signal of distress. The crew of Station No. 1, First District (Carrying Point Cove, West Quoddy Head, Maine), put off at once in answer to the signal, and upon learning of

the schooner's loss, and that her crew of four men were so much exhausted from exposure and work as to be unable to recover the lost anchor without assistance, took charge and dropped her down to her old berth, grappled for and recovered the anchor, and then, after putting her under snug canvas and getting her under way, they piloted her clear of danger, and thus enabled her to proceed down the coast on her voyage to the westward with a fair wind.

October 19.—At daylight, the keeper of Station No. 15, Second District (Surfside, Nantucket, Massachusetts), upon ascending to the lookout platform on the roof of his station, discovered a vessel apparently ashore several miles to the westward. The boat was at once called away and launched, the life-saving crew getting off at a quarter before 6 and arriving alongside the vessel two hours later (8.45 A. M.). It was the schooner Frank M. Noyes, of and for Boston, from Baracoa, Cuba, with a cargo of fruit. They had mistaken Sankaty Head light for the light upon Gay Head and shaped their course accordingly, the vessel striking the beach about seven miles west of the life-saving station at 2 o'clock that morning. The fact that the stranding occurred some miles beyond the ordinary patrol limits of the station will account for the schooner not being seen until daylight. Fortunately the weather was fine and the sea smooth and no immediate danger was apprehended. The captain had already landed and gone over to town on the north side of the island, in quest of assistance. Upon the latter's return, at half past 11, the keeper informed him that he was from the life-saving station, and offered to aid in getting the schooner off, but the captain declined the offer with thanks, having employed other assistance. The life-saving crew therefore left, arriving home in the afternoon. The vessel afterwards came off without damage. Although it so happened that no assistance was required on the occasion, the life-saving crew exhibited commendable diligence in proceeding to the vessel as soon as she was seen and offering their services, the pull to and from her being a long and arduous one, and on that account their conduct is deserving of mention.

October 19.—At about 8 in the morning, as two of the crew of Station No. 10, Fourth District (opposite Point Pleasant, New Jersey), were out fishing abreast of their station, nearly two miles from shore, they discovered a boat bottom up, with two men clinging to it. The boat was about a quarter of a mile off, and the surfmen quickly dropped their fishing-gear and pulled to the rescue, finding the men in an almost exhausted condition, they having been in the water at least thirty minutes. The men had put off from Point Pleasant that morning after fish, but the sea becoming quite rough their boat had swamped and capsized, and in this condition it rolled over and over with them, the poor fellows being washed off several times before the arrival of their rescuers. In fact, their strength was almost gone when they were taken from the water. The boat was righted and bailed out and towed ashore through the surf, and the men were conducted to the station, where they were at once furnished with dry clothing and restoratives, remaining there until their own clothing could be dried and they were sufficiently recovered to travel homeward. Their discovery by the surfmen was extremely fortunate, for beside the fact that they could not have held on much longer it should be stated that their boat was a very small one, a mere speck upon the water, and therefore not likely to be noticed at its great distance from the shore with the sea as rough as it then was.

October 19.—Between 9 and 10 o'clock in the morning two schooners,

one the *Crissie Wright*, of Philadelphia, from Providence, Rhode Island, in ballast, with a crew of seven men, the other named *Hattie Perry*, of and from New Bedford, with a crew of five men, and laden with lumber and sperm oil, while bound through Cape May Channel into the Delaware, *en route* to Philadelphia, grounded on the north shoal off Cape May, New Jersey, the former about a mile and a quarter and the latter a mile and a half from Station No. 40, Fourth District, near the lighthouse on the cape. They were seen to strike by the station crew, who immediately put off in the surf-boat to their assistance. The *Crissie Wright* was lying easy and in no immediate danger. It was low-water and she was therefore likely to float when the tide swelled. As her sails had been lowered, the life-saving crew assisted in setting them again to the best advantage for helping her off, and then after pointing out to the captain where the best water was to be found left him and proceeded on board the *Hattie Perry*. This vessel was deeply laden, and as she was pounding heavily her position was more serious. The station men assisted in hoisting her sails also, and remained on board for three hours helping at whatever was necessary to be done, and finally worked her off and piloted her into the channel, thus enabling her to resume her voyage without sustaining any damage. In the mean time the *Crissie Wright* had also floated off and proceeded into the bay.

October 19.—The sloop *Zulu Chief*, of and from Atlantic City, New Jersey, for Yorktown, Virginia, with four passengers and a crew of two men, while running down the coast before a fresh northeasterly gale and quite a rough sea, kept too close in-shore and struck the bar off Hog Island Inlet, Virginia, at a point about half a mile from the beach. The accident occurred at 11 o'clock in the day, in plain view of the crew of Station No. 9, Fifth District, a mile and a half distant on Hog Island, who at once launched the surf-boat and went to the sloop's assistance. She was pounding heavily and lay in a very dangerous position. The life-saving crew went to work without delay and carried out her anchors, and by that means succeeded after a couple of hours' hard heaving, in saving the vessel. Her crew reported that their yawl had been swept overboard, and that they were entirely out of fresh water. They were also without the means of lighting a fire, having no matches on board. Although unable to furnish them with a suitable boat to replace the one lost, the life-saving crew brought off a supply of fresh water and other necessities from the station, and then, with specific advice from the keeper as to the best courses to steer to avoid outlying shoals further down the coast, the men proceeded on their way rejoicing, thankful for their escape from shipwreck. Had the sloop remained aground a few hours longer her destruction would have been certain.

October 20.—At 8 o'clock in the morning the crew of Station No. 13, Eleventh District (Kenosha, Wisconsin), sighted a schooner in the offing, five miles from shore, flying a signal of distress. The surf-boat was at once launched, and after a hard pull against the strong northeast wind and heavy sea then prevailing they reached the vessel, which proved to be the *North Star*, of Green Bay, Wisconsin, to which place she was bound from Chicago, with a cargo of corn, her crew numbering five men. She was leaking badly and partially disabled by the loss of spars and sails, having been in collision the night before with the schooner *George B. Sloan*. The captain was anxious to reach Racine for repairs. The life-saving crew, therefore, assisted in bringing the vessel to anchor off Kenosha, and then landed with the captain to telegraph to Racine for a tug to tow her to that port. As no tug could be obtained, the

captain decided to put into Kenosha; so a small fishing steamer was engaged and the vessel was towed safely into that harbor.

October 21.—A gentleman named Moses Richards, seventy-four years of age, a resident of Painesville, Ohio, while fishing from the end of the pier at Fairport, Ohio, fell overboard, and being unable to swim, narrowly escaped drowning. The accident, which was caused by the slipperiness of the pier, was witnessed by the lookout at Station No. 7, Ninth District, about two hundred and fifty yards distant, and he and the rest of the life-saving crew at once dashed down the pier to the rescue. The first man to arrive quickly grasped the old gentleman, and with the aid of the others he was soon lifted onto the pier and taken to the station. There he was furnished with stimulants and dry clothing, and by the time his own wet garments could be dried at the station fire he was sufficiently recovered from the shock to be able to travel homeward. The water at the time was quite cold and the air chilly, and the man would soon have perished but for the activity of the life-saving crew in rescuing him and applying the necessary restoratives.

October 22.—The schooner J. H. Eels, of Camden, Maine, to which place she was bound from Dover, New Hampshire, in ballast, having a crew of three men, got becalmed when off White Head Island, coast of Maine, and to avoid being carried by the ebb-tide onto Red Ledge, a dangerous reef of rocks three-quarters of a mile to the westward of the island, at the lower part of Wheeler's Bay, came to anchor about half a mile from Station No. 5, First District, which is situated on the island. It was at 1 o'clock in the afternoon, and the life-saving crew, observing the schooner's peril, at once put off and proffered their assistance. The captain was very glad of their timely arrival, saying that his vessel was short-handed, and that he was unacquainted with the locality. The keeper at once took charge, and, as soon as a breeze sprung up got the schooner under way and piloted her safely clear of the rocks and around White Head Island into Muscle Ridge Channel, where he left her to proceed on her way up Penobscot Bay to her destination. Before the life-saving crew left him the captain expressed much thankfulness for the service rendered, saying that without their aid he would probably have lost his vessel on the rocks, which at that point are very numerous, and render navigation of those waters extremely dangerous.

October 22.—At half-past 11 o'clock in the day, a cat-rigged boat was seen in distress in the bay, and the crew of Station No. 20, Third District (Smith's Point, Long Island), putting out in the surf-boat to her assistance, found her in a water-logged condition, with only two boys on board. The men succeeded in freeing her of water, got her under way, and she proceeded to her destination.

October 22.—As the *Amelia*, a small cat-rigged yacht owned at Somers Point, New Jersey, was running into Great Egg Harbor Inlet, from a fishing trip off-shore, at 2 o'clock in the afternoon, she capsized in the surf upon the bar and threw her crew of two men overboard. Fortunately they managed to cling to her, as she lay on her broadside, until another small yacht, the *Palmer*, Capt. Elijah Townsend, which was coming in astern, ranged up alongside a few minutes afterwards and rescued them. The crew of Station No. 29, Fourth District, a mile and a half distant on the northerly side of the inlet, saw the occurrence and at once put off in their surf-boat to render assistance. While they were on the way, the *Amelia* had struck upon a shoal spot inside the bar, where she righted and was then driven up on the beach, full of water, just north of the inlet. The life-saving crew, assisted by the *Amelia's* men, who had landed from the *Palmer* upon the latter's arrival

inside, made fast a line to the stranded yacht, and succeeded, after a hard pull, in getting her afloat, and then took her into the inlet, where arrangements were made with another vessel to tow her up the bay to Somers Point, for such repairs as were rendered necessary by the accident. While great praise is due to the crew of the Palmer for rescuing the two men, the life-saving crew deserve the credit of saving the vessel, for she would very soon have bilged and become a wreck had they not floated her off as quickly as they did.

October 22.—Scarcely had the crew of Station No. 29, taken the Amelia safely inside Great Egg Harbor Inlet, as above related, at about half-past 5 in the evening, when another small vessel was observed to anchor outside the bar, about two miles from shore, and hoist a signal for assistance. The station crew, although quite exhausted by their exertions in saving the Amelia, at once started out in the surf-boat with the intention of boarding her. The wind and tide were strongly against them, and upon nearing the bar, after a hard pull, it was found that the sea had increased to such an extent since afternoon as to make the channel impassable by the boat in the darkness then upon them, the passage being one mass of high combing breakers, which it would be madness for them to attempt encountering. They therefore reluctantly abandoned further effort for the night, and returned on shore. The next morning they were off by 5 o'clock, but the sea was still large, and it was only after a trying struggle for two long hours that they succeeded in overcoming the dangers of the inlet bar and reached the vessel, it being 7 o'clock when they drew up alongside. The craft proved to be the George Anderson, also of Somers Point. She was in good condition, but her crew of three men, upon arriving off the bar from a fishing cruise the evening before, had found the surf too dangerous for them to attempt its passage, and had therefore signaled for assistance, with the intention of leaving her where she lay and going on shore for the night. As the bar was still too rough for the yacht to run in, the men took passage in the surf-boat and were conveyed safely ashore, leaving their craft still at anchor. On the next day (October 24), in the afternoon, the life-saving crew again crossed the bar with the Anderson's men, in the hope that the state of the sea was such as to permit them to bring the vessel in. The trip was a fruitless one, however, for although they managed to get on board, free her of water, and make everything snug, the bar was altogether too rough for them to attempt its passage. All hands therefore returned on shore again. On the 25th the sea was still very heavy, and nothing could be done; but on the morning of the 26th, the surf having subsided considerably during the night, the station boat was launched at half-past 7 and the Anderson's men again taken to her. This trip was attended with good results, for with smoother water on the bar they got the yacht under way, and then under the favoring influence of a fair wind she was soon piloted safely into the inlet, the life-saving crew then returning to their station, while the vessel proceeded up to Somers Point, whither she was bound.

October 22.—On this date the crew of Station No. 8, Fifth District, (Cedar Inlet, Virginia), rescued three men from a capsized boat, about half a mile distant from the land, under the following circumstances: At 9 o'clock in the morning several small fishing boats from Locustville and other points on the main land, came down to the inlet with the intention of going out fishing. A fresh southerly wind was blowing, and as the sea was quite rough on the bar the fishermen landed upon the point of the beach for an interchange of views as to the chances of going,

out and returning safely through the surf. Of the eight boats assembled, but three took the risk and ventured out, the rest remaining inside. It was a dangerous undertaking, and the keeper of the station upon seeing the boats set out, instructed his men to be on the alert and keep a sharp watch upon their movements. They passed out in good style, and everything went well until 3 in the afternoon, at which hour the boats were reported as returning shoreward, the sea then being much worse than when they went out. The keeper at once ordered the surf-boat down to the edge of the surf, and all hands from the station stood by ready to launch in an instant, if necessary. The headmost boat came in over the bar splendidly and was soon in smooth water. The second boat, upon reaching the bar, a little later, was overtaken by a heavy sea, which disabled her rudder, and immediately afterwards a second one spun her around broadside to and upset her, throwing her occupants, three men, into the water. The surf-boat was immediately launched and the life-saving crew put off with vigorous strokes, and after a pull of half a mile reached the capsized boat and rescued the men, who were clinging to the bottom, and took them safely ashore. They then turned to meet the third boat, anticipating a similar accident to her. She came in, however, in good style and needed no assistance. The station crew therefore returned and conducted the three men to the station to dry their clothing and afford them an opportunity to recover from the effects of their exposure, one of them being so chilled and exhausted as to require the administration of stimulants and careful nursing for a time before he was able to journey to his home across the bay. He had been washed off once, and in the struggle to regain the bottom of the boat he lost some of his clothing and was in a state of semi-nudity when rescued. His wants in that respect were supplied from the store of clothing placed at the station for the use of shipwrecked people by the Women's National Relief Association. The good work rendered by the crew of the station was supplemented by the recovery of the boat and its restoration to its owner.

October 23.—At 1.30 P. M. the schooner Williamine, of Boston, bound from Richmond, Maine, to Baltimore, with a cargo of ice, and having a crew of eight men, grounded on Handkerchief Shoal, two and a half miles from Monomoy Point, Massachusetts, her captain being unacquainted with the locality. The crew of Station No. 14, Second District (Monomoy Island), went out to her, a distance of six miles from the station, and assisted until evening, which was as long as the captain desired their services, in throwing overboard cargo to enable her to float at high water next morning. The life-saving crew would have remained longer, but the captain had meanwhile contracted with a party of wreckers to save the vessel, and as the further assistance of the station men was unnecessary, it was declined with thanks. The schooner came off a few hours later and proceeded on her voyage.

October 23.—The crew of Station No. 3, Third District (Watch Hill, Rhode Island), discovered at daylight that the Watch Hill Reef can buoy had broken adrift, and was drifting out to sea with wind and tide, being then a mile away. The surf-boat was at once launched, and pulled after the buoy, which was taken in tow, moored safely near the station, and the collector of the port notified.

October 24.—At a quarter past 10 at night the schooner Helen R. Law, of and from Gloucester, Massachusetts, bound to the banks on a fishing cruise, with eleven men on board, all told, while working to the eastward against a fresh easterly breeze with thick rainy weather, got caught close in among the rocky ledges off the southwesterly point of

Little Cranberry Island, and was compelled to anchor to avoid striking on them. Her crew had mistaken the light upon Baker's Island for that on Egg Rock. The place in which she anchored was about one-fourth of a mile west by south of Station No. 4, First District (Little Cranberry Island), two of the patrolmen discovering and reporting her at their station soon after she came to. The life-saving crew launched their boat, and upon boarding the vessel found her in such dangerous contiguity to the rocks, which nearly surrounded her, that it was deemed unsafe to attempt to move her in the misty darkness then prevailing. It was therefore decided to wait until morning, the keeper first satisfying himself that the anchors would be likely to hold, and that she would not take the bottom at low water, and then placing one of his men, who was a good pilot, in charge. At daylight they again went on board, and after working her clear of the ledges she was piloted into Cranberry Island Harbor, where she could ride out the storm in safety.

October 24.—The schooner *Laurel*, of Ellsworth, Maine, bound from Boston to Bangor, in ballast, with a crew of three men, while attempting to beat around White Head Island into Seal Harbor, Maine, for refuge during a strong northeasterly gale, with rain, misstayed in going about for an off-shore tack, and, to save striking upon the rocks, was compelled to anchor in an exposed and dangerous position. She came to at 8 o'clock in the morning, about forty yards from the shore, and distant three-quarters of mile from Station No. 5, First District, located on the opposite side of the island. Fortunately, one of the surfmen was in the vicinity at the time the schooner anchored, and the captain hailed him with a request for assistance. The man dashed off at once to alarm his comrades, and in half an hour from the time she anchored, the life-saving crew were alongside in their surf-boat. The schooner was in imminent danger of dragging onto the rocks, and whatever was done must be done quickly. At the captain's request the keeper took charge, and with his crew got the schooner under way, and skillfully worked her clear of all danger and ran her safely into Seal Harbor, where he anchored her, and after furling her sails, left her safe and snug. The station crew certainly saved the vessel, for her situation was such that she would soon have driven ashore, and, with the sea then running, her destruction would have been speedy and complete.

October 24.—At 11 o'clock in the forenoon Capt. R. B. Ross, of the schooner *Hattie Earl*, of Racine, Wisconsin, bound from Ludington to Chicago with a cargo of cedar posts and shingles, reported at Station No. 11, Eleventh District (Chicago, Illinois), that his vessel had been run into at 4 o'clock that morning by the schooner *Green Bay*, while lying at anchor off-shore, about six miles northeast of the harbor, and her stern so badly stove that she became water-logged, he and his crew, five in all, being taken off and brought to port by the tug-boat *Little Giant*. Upon hearing the story the keeper at once offered to go out to the vessel with his crew and endeavor to save her, but the captain thought the weather too rough for anything to be done, the wind at the time blowing fresh from the northeast with a heavy sea. The employment of a tug was then suggested, the keeper volunteering to go out with the latter and render all the assistance in his power. Captain Ross assented to this, remarking at the same time that he feared the vessel might roll over on her side as soon as she got broadside to the sea on her way to port. This had no deterrent effect on the men, and they, one and all, volunteered to go wherever the keeper should lead them. Two tugs were therefore at once engaged, one of them, the *Union*, taking the surf-boat with the life-saving crew in tow. Upon reaching

the vessel she was found full of water, and the sea dashing over her fore and aft. Watching their opportunity, three of the men sprang on board, fully instructed what to do, while the rest in the surf-boat lay close by ready to assist their comrades should the schooner capsize as the captain feared. The task of hauling a tow-line on board and making it fast to the foremast was a perilous undertaking, and still more so that of unshackling and slipping the cable, the danger to life and limb from the floating mass of cedar logs which formed the deck-load being exceedingly great. At last, after two hours of very difficult work, they succeeded in slipping and buoying the chain, and the schooner was taken in tow to the harbor, where she arrived without further mishap the same afternoon, to the great relief of the captain, who was part owner of the vessel.

October 25.—As the *Helen R. Law* was being piloted into Cranberry Island Harbor, as previously described, another vessel was discovered apparently ashore several miles to the westward, in the vicinity of what is known as The Nubble, the southernmost point of Mount Desert Island, Great Cranberry Island intervening so that she could not be seen from the station (No. 4, First District). The surf-boat was at once manned by the life-saving crew, who reached the vessel after a hard pull at about noon. It proved to be the schooner *Good Intent*, of and from Lubec, for Boston, with a cargo of smoked herring and oil, and having a crew of two men. She had run on the rocks the night previous at the east side of Bennett's Cove, near Tremont, Mount Desert, about five miles due west-southwest from Little Cranberry Island. The vessel was bilged and full of water, and her crew safely ashore. The life-saving crew offered their services, but as a party of wreckers had agreed to get the vessel off, the offer was thankfully declined. The schooner was subsequently saved. Although the life-saving crew could render no particular service on this occasion, they are justly entitled to the credit of having made a long and toilsome journey with their boat, in tempestuous weather, for the purpose of saving life and property if necessary.

October 26.—During the forenoon a fishing-smack, while working up to the anchorage in Quoddy Bay, coast of Maine, encountered a heavy squall, during which her yawl went adrift. They were unable to pick the boat up while the storm lasted, and it was therefore abandoned. The yawl would no doubt have drifted to sea before the gale had it not been sighted by the crew of Station No. 1, First District (Carrying Point Cove, West Quoddy Head), who quickly put off and brought the boat ashore, and subsequently restored it to its owners.

October 26.—The schooner *Banner*, of Ellsworth, Maine, with a crew of two men, bound from Gouldsborough to Cranberry Isles, in ballast, while riding at anchor during a northwesterly gale, parted one of her cables and dragged ashore on the west side of Little Cranberry Island. The accident occurred at about 3 in the afternoon, and the crew of Station No. 4, First District, upon discovering it, proceeded to the place as quickly as possible in their surf-boat. The schooner was found high and dry upon the beach and her crew safely ashore. As nothing effective could be done at that time on account of the lowness of the tide, it was resolved to defer operations until high water. Accordingly at 11 o'clock that night the life-saving crew again proceeded to the vessel, but the sea was so extremely rough, the spray flying half-mast high, that it was then seen that any attempt to move her before the subsidence of the storm would be useless. The weather remained bad until the morning of the 29th. On that day, the sea having gone down, they

turned to and dug away the sand outside of her, thus forming a channel, and then, after planting anchors off-shore and rigging purchases thereto, they succeeded in heaving the schooner afloat in good condition. This done, the life-saving crew swept for and recovered the lost anchor, and afterwards piloted her into Cranberry Island Harbor, to the great relief of the captain, who was also part owner of the vessel.

October 26.—At half-past 8 in the morning, as the crew of Station No. 5, First District (White Head Island, coast of Maine), were out watching a fleet of coasting vessels beating up past the island into Seal Harbor for refuge during a fresh northwesterly gale, the schooner *Marcellus*, in trying to avoid the schooner *Lyra*, which was but half a length astern of her, on the same tack, struck upon Hay Island Ledge, about half a mile northeast of the light-house upon White Head Island. In an instant the *Lyra* went crashing into the stern of the *Marcellus*, carrying away the latter's yawl and the davits to which it hung, as well as the stern rail. The *Lyra*'s bow was badly stove by the collision, her water-ways forward were started and her port anchor went overboard, taking the cat-head with it. The life-saving crew at once hurried to the spot in their boat, reaching the *Lyra* fifteen minutes after the collision. It appears both schooners were lumber-laden and bound to Boston, the *Lyra*, which hailed from Deer Isle, having loaded at Bangor, while the *Marcellus* was from Ellsworth, where she belonged. The *Marcellus* carried a crew of four men, and the *Lyra*, a larger vessel, had five. As soon as the life-saving crew arrived the *Lyra*'s anchor was tripped and the schooner allowed to drop astern, and then, after bringing her to under the lee of Seal Island, with her starboard anchor, the port one was hove up and secured, the sails were furled and she was pumped out and made as snug as possible for riding out the gale. Attention was then given to the *Marcellus*, which vessel they reached about 11 o'clock. It was found she had swung clear of the rocks on the flood tide and anchored, although not entirely out of danger. The captain was very glad of their coming, and expressed anxiety to get the vessel into the harbor. Before anything could be done, however, and while they were preparing to shift her berth, the chain by which she rode parted and the anchor was lost, all she had left being a kedge, which was not sufficient to hold her. It appeared she had lost the other bower a few weeks previous. They hoisted sail as quickly as possible and then worked her up into Seal Harbor, where, as she had no ground tackle to depend upon, she was rounded to in a handsome manner and secured to the mooring-buoy belonging to the Spruce Head Granite Works under the sheltering lee of Spruce Head Island, in a perfectly safe berth. After furling sails the life-saving crew assisted the captain in obtaining materials for repairing his yawl, damaged by the *Lyra*, and aided him in other ways to place the schooner in seaworthy condition again. The captain of the *Marcellus*, in submitting a statement of the accident to the collector of customs at his home port, as required by law, closed his report as follows: "The crew of White Head Station boarded us and did noble work and got us off without damage."

October 26.—The crew of Station No. 4, Third District (Block Island, Rhode Island), hearing that the top-sail of the schooner *Mystery*, then lying in the harbor, was adrift from the gaskets and liable to be blown away, went on board, in the absence of the schooner's men, and secured the sail. A little later they rendered the same service to the schooner *Laura E. Gamage*.

October 27.—At daylight the patrol from Station No. 1, First District

(Carrying Point Cove, West Quoddy Head, Maine), discovered a schooner at anchor in dangerous proximity to Black Rock, Quoddy Bay. A heavy westerly gale was then blowing, and the situation of the schooner was at once reported at the station. The schooner proved to be the *Idlewild*, of Lubec, whither she was bound from New York with an assorted cargo. Her crew numbered four men. They had split their sails during the night and lost an anchor, and had been compelled to come to in their present position with their only remaining anchor to avoid going onto the rocks, which were close under their lee. The life-saving crew went to work and assisted in repairing the sails so as to set them reefed, with a view of working the vessel to a place of safety. This done the windlass was manned to get the schooner under way. Before they could heave short, however, the chain parted and the second anchor was lost. The schooner was quickly filled away, just in time to clear the rocks, and beat up into the bay, the gale being still very heavy and the sea high. As the schooner was now without holding gear of any kind they worked close up to the schooner *A. L. Mitchell*, lying in the bay in comparatively smooth water with both anchors down, and hailed her with a request for a hawser to make fast to until the tide would permit them to enter Lubec Harbor. The captain of the *Mitchell* responded by paying a hawser over the stern, which was quickly picked up by the life-saving crew, and the *Idlewild* was thus enabled to lie astern of the former vessel until the tide turned, when they cast off, and the schooner was piloted up to Lubec and snugly moored to the wharf without damage to hull or cargo, the keeper and his men then returning across the bay to their station several miles distant. This vessel, when boarded, was in an extremely critical position, and it was undoubtedly due to the exertions of the life saving crew that she was saved.

October 27.—On this date, at 2 in the afternoon, during the prevalence of the same storm which nearly wrecked the *Banner*, as before mentioned, the schooner *Schuyler Colfax* dragged her anchors and drove ashore high and dry on the west side of Great Gotts Island, seven or eight miles west-southwest of the station on Little Cranberry Island (No. 4, First District). She was entirely hidden from view at the station, and the life-saving crew knew nothing of the disaster until the following day at 10 o'clock, when a passing vessel hailed the station and notified the crew of its occurrence. It will be remembered the men had been out a portion of the night previous in attendance upon the schooner *Banner*, besides each in turn taking his tour of duty on patrol. The weather was yet too rough for anything to be done for the relief of the *Banner*, and the keeper therefore decided to proceed at once to Gotts Island and ascertain the nature of the disaster, and, if possible, render assistance. It was a long and hard pull against an adverse gale and head sea, and the vessel was not reached until afternoon. They learned that the schooner was from Gloucester, Massachusetts, with a crew of eleven men, bound to the George's Banks, fishing. The keeper's offer of assistance was thankfully declined by the captain. Being high and dry and badly sanded, the only way to save her was by digging her out, and for that purpose a party of wreckers, possessed of the requisite appliances, had been engaged. The life-saving crew therefore returned to Cranberry Island the same afternoon. This case was in some respects similar to that of the *Good Intent*, stranded near Tremont, Mount Desert, a day or two previous. The station crew had a longer and more exhausting pull to the *Colfax*, but nothing in the way of assistance could be rendered by them in either case, the facts being recorded simply to

show the great distances frequently required to be traversed by the crews in certain localities where it sometimes happens that no other aid is at hand.

October 27.—One of the patrolmen of Station No. 6, Second District (Race Point, Massachusetts), saw a schooner standing into danger and warned her off by firing his red Coston light.

October 27.—The crew of Station No. 11, Eleventh District (Chicago, Illinois), were called upon to grapple for an anchor and chain belonging to the Government, lost near the new breakwater outside the harbor. After sweeping the bottom for about an hour the anchor was found and recovered by them.

October 29.—One of the patrolmen of Station No. 1, Second District (Plum Island, Massachusetts), found a fishing dory at 11 o'clock at night pitching about in the surf, which he hauled out. The boat was subsequently identified by its owner.

October 30.—The schooner Proctor Brothers, of Gloucester, Massachusetts, laden with fish for Cranberry Isles, while running for the harbor during the prevalence of a thick rain-storm before daylight in the morning, miscalculated her position and went ashore on the bar between Baker's and Little Cranberry Islands, at a point about half a mile south-southeast of Station No. 4, First District, on the last-named island. The schooner was discovered by the two patrolmen on duty, who hurried to the station with the alarm, the life-saving crew reaching her in their boat at quarter-past 4, or half an hour after she struck. She grounded at high water at a place where the ebb-tide would leave her dry. As usual with fishing vessels, she had a large crew, numbering twelve men, all told. There did not appear to be any immediate danger of the vessel bilging or breaking up, as the sea was comparatively smooth, so it was arranged that all hands except the captain should remain on board, while the latter accompanied the life-saving crew ashore to obtain proper gear for hauling the vessel off. The personal effects of the crew were taken ashore at the same time and stored at the station, as a precautionary measure in case it should be found necessary later on to abandon the vessel. At low water the cargo was landed and her anchor carried out, with the assistance of the life-saving crew, and then, with everything in readiness, at the next high water the schooner was hauled off without damage and piloted clear of the dangerous ledges surrounding her and into the harbor, the life-saving crew returning to their station at about 5 in the evening.

October 30.—Shortly before 8 o'clock in the evening, during the prevalence of a thick fog, the south patrolman from Station No. 7, Second District (Peaked Hill Bar, Cape Cod, Massachusetts), sighted a bark running along the coast, inside the bar, and in imminent danger of striking. She was so close to the beach that his warning signal was instantly seen and the vessel hauled off into deeper water, happily without grounding on the bar.

October 30.—At 5 o'clock in the morning the British iron bark, Lamerlaw, of Liverpool, England, bound from Newcastle, Australia, to Portland, Oregon, with a cargo of 1,125 tons of coal, mistaking the Shoalwater Bay light for that at Cape Hancock, struck on the south end of the north breakers, north of the entrance to Shoalwater Bay, Washington Territory, about seven miles from shore. There was a very heavy sea at the time of the disaster, and the atmosphere was obscured by frequent squalls. Two hours later, at 7 o'clock, Mr. Albert T. Stream, the keeper of Life-boat Station No. 2, Twelfth District (Shoalwater Bay), went out on the hill near the station to take a survey of the bar

with the glass, but could see nothing, as a big squall from the southwest was then sweeping across the horizon. At half-past 8, going over to the Shoalwater Bay light-house near by, he met Mr. Sidney Smith, the light-keeper, who told him that he had caught sight of a vessel in the breakers. Keeper Stream at once determined to go out, if possible, to the rescue. His initial difficulty was to procure a crew, as the station at this lonely point is quite isolated, there not being more than four or five white men within a radius of ten miles. The main reliance was upon an Indian village about two miles from the station, and thither, at the request of Keeper Stream, the light-keeper hurried to endeavor to muster a crew. In this endeavor he failed, only three of the Indians being willing to face the high wind and raging sea, and he kept on to South Bend Mills, about fifteen miles distant, where he got the tug South Bend to come down with some men. They arrived at the station at about 4 o'clock in the afternoon. Meanwhile, Keeper Stream, with the aid of Assistant Light-keeper Tilben and several ladies belonging to the mission, had launched the surf-boat and got ready for the enterprise. Seven men had been brought down by the tug, and they took their places at the oars. The start was then made, the surf-boat being in tow of the tug.

For about three miles of the stormy journey the tug continued to tow the boat, but darkness fell and the surf ran very heavily, and the captain, in view of the increasing danger made by the wild night and sea, refused to tow the surf-boat further. The staunch and steadfast spirit which Keeper Stream showed all through this adventure now came out in the request to the captain of the tug to stand by him until morning. This solicitation, however, was negatived. The captain of a San Francisco schooner was on board the tug, and four of his sailors formed part of the volunteer crew of the surf-boat. The keeper failing to get the tug to remain through the night, now tried, with the consent of these men, to induce their captain to allow them to stay with him, but he would not consent, and the men were reluctantly obliged to go on board the tug, which put back to South Bend, leaving the brave keeper no course (since to remain or to go on was now impossible) but to pull back to the station in the dark against the tide, with only three men left to help him, one of them, named Field, having previously served at Station No. 3, (Cape Disappointment).

The station was reached by half-past 8. After sending the three men with him to bed, with the warning to be ready for action in the morning, the keeper started out and burned some Coston signals to the distant wreck, to let those on board know that help was coming. There were fifteen men, including the captain, on board the stranded vessel. They saw the keeper's lights, and after a little while he beheld the dark horizon flare for a few moments with their answer. Then he set out through the darkness for the Indian village, and roused the three men, Light-house George, Light-house Charley, and Indian Bob, who had been willing to go out in the boat the day before. They were of the same mind still, and accompanied him back to the station.

The tug had promised to return by daybreak, but did not reach the station until half-past 10 in the forenoon. The keeper, however, did not wait for her. Before dawn he assembled his crew of six men, and after getting something to eat, they manned the surf-boat and started. It was then 3 o'clock in the morning. They pulled down the bay against the tide for six miles; then, as the sea grew rougher, they were compelled to anchor and wait for daylight.

When the day broke it disclosed the vessel only a mile away. She

lay with her hull well buried in the turbulent floods, and the surf every moment flying in great sheets over her. The black figures of her men were all seen aft, some upon the top of the cabin, some up in the mizzen rigging. All around this lamentable sight the sea ran and burst terribly. The time had come for the surf-boat to make her perilous advance to the rescue, but at the spectacle of the stretch of raging water which daybreak had revealed, two of the Indians in the boat quailed, and refused to row, declaring that it would be impossible to get nearer the wreck. The third Indian, Light-house George, behaved nobly and stood by his oar. But the others were inflexible in their dismay, and the baffled keeper, unable to go on without their aid, was obliged to wait until the tug came.

This was not until noon. As soon as the tug came snorting into view the keeper rowed up to her and changed his two Indians and two others of his men for four of the men she had on board. The start was then made for the wreck, the danger and the difficulty increasing at every boat's length. The whole region is one of extensive shoals, and consequently of broken water when any swell or sea is on. In the tempestuous weather of the last two days, the great field of shallow waters literally raged, and the wreck stuck out aslant, the center of an abattis of flying chutes and cataracts. There was positively no lee for the boat's approach; the breakers ran and volleyed around the hull on every side. Amidst this turmoil the boat inched up to the wreck, the men keeping a terrible grip upon the oars and straining for their hold against the sea. Once the boat half filled and was quickly bailed, and an oar snapped in twain, but finally, by hazardous maneuvers, eight of the men upon the wreck were taken off, two of them being hauled through the surf by a line. One of the eight was the captain, who was disabled, having been knocked down by the wheel when the vessel first struck. Another tug, the General Garfield, had made its appearance upon the scene, and lay at the edge of the breakers, three-quarters of a mile away; and the keeper finding it impossible in such a sea to attempt to get more into a boat so heavily laden, made for this tug, and put the eight men saved on board of her. He then returned to the wreck and entered upon another struggle for the remainder. The boat was twice half filled in this encounter, another oar was broken, and the keeper was once thrown down and his right arm hurt, but one by one the seven men on board were rescued, and by 3 o'clock in the afternoon the gallant keeper and his men rowed out of the array of breakers to the tug South Bend, upon which he placed his pleiad of saved. The tug then took the surf-boat in tow and foamed back to the station.

Thus ended this fine rescue, which might have been accomplished twenty-four hours earlier if Keeper Stream could have promptly got together a crew. Without the intervention of the keeper the long and miserable vigil of the unfortunate crew of the Lammerlaw, held above their surf-buried hull, would have had a tragic ending. They had no means of escape from their perilous situation. A life-boat which the vessel had on board was smashed to pieces before it could be got from the deck, in an effort to launch when the bark first stranded. After this disaster there was no moment which the men upon the wreck did not feel might be their last. Even when the surf-boat came upon the scene and entered upon its hazardous and daring maneuvers for their deliverance, the moments were still fraught with peril—peril, indeed, graver and more imminent, since the issues are those of immediate life or death in the hour when the surf-boat engages in its combat with the sea.

The Lammerlaw, as previously stated, was a British vessel, and the British Government showed its appreciation of Keeper Stream's constancy, courage, and ability by awarding him a medal in commemoration of his conduct of the rescue.

October 31.—Keeper Stream's labors did not end with the rescue of the crew of the Lammerlaw. During the return he saw from the surf-boat a bark lying at anchor with her sails clewed up, south by west of the station, about fifteen miles away. He watched her through the glass until sundown, when a fog came rolling in and shut her from view. It did not seem probable that the vessel was aground, but at 6 o'clock Mr. Sidney Smith, the light-keeper, came over and told Keeper Stream that he thought she was in the breakers. After consultation, the light-keeper generously volunteered to relieve his exhausted *confrère* by going again to South Bend Mills for men, and, the wind having gone down, he started in a dingey. At 3 o'clock in the morning (November 1) he returned with the tug General Garfield and a crew of men, bringing the news that the tug South Bend was also coming with another crew. As it was not known, and could not be, in the continuance of the fog, whether the bark, in the event of her being in the breakers, was on the beach or on an outer spit known in that region as the Nine-foot Patch, it was decided to go out to her with the wreck-gun and apparatus, as well as the surf-boat, the intention being to use either as occasion might demand. The ordnance and its appurtenances were therefore put on board the General Garfield, and as the South Bend did not arrive, the first-named tug started at 6 o'clock with the surf-boat in tow. The vessel was found at ten miles' distance, stranded about two hundred and fifty yards from shore, head to the surf, on the beach of Ledbetter Point, and proved to be the British bark G. Broughton, of Liverpool, bound from Brisbane, Australia, to Portland, Oregon, ballasted with coal, and having on board a crew of eighteen men. She had mistaken in the fog the entrance to Shoalwater Bay for the entrance to Columbia River, the shape of the land not being discernible, and at 4 o'clock in the afternoon had let go her anchor in eight fathoms of water. Before long, however, as there was a strong flood-tide and a heavy surf running, her cable parted, and about dark she had drifted onto the beach.

The keeper landed near a settlement called Oysterville, where he procured a team to haul the gun and apparatus. These had to be carried by the men through half a mile of quicksand until firm ground was reached, where the team could get to them. A little after sunrise the life-saving party arrived upon the beach with their load, abreast of the bark. Her mizzen-mast was gone, but she showed no signal of distress, and it was evident that those on board were in no immediate danger. The keeper, therefore, concluded to wait until low water, as the tide was then ebbing fast. The ebb before long left the vessel with not more than a foot of water under her stern, and the captain waded ashore. He declined help, as there was no immediate peril to his crew. The bark, ten feet deep in the sand, and leaking badly, was manifestly lost, with only a prospect of saving her rigging. In view of the discovered situation of affairs, the toil and travel of the keeper and his men were fruitless, and they returned to the station, on November 2, with the boat and apparatus, after a season of activity which had lasted thirty-two hours.

October 31.—At midnight of the 30th the three-masted schooner Katie Collins, of Philadelphia, bound from Jacksonville, Florida, to Perth Amboy, New Jersey, with a cargo of lumber, went ashore during a strong southeasterly gale, with thick, stormy weather, on Assawaman Beach, at

a point about half a mile south of the inlet of that name, and ten miles southwest by west of Station No. 7, Fifth District (Assateague Beach, Virginia). She was discovered through a rift in the fog by one of the station men at a quarter before 11 in the morning, and fifteen minutes later the life-saving crew set out in the surf-boat with the intention of boarding her. The sea was so rough that the journey would have been made by land but for the fact that three inlets intervened. The wind and sea were right in their teeth and steadily increasing, so that by the time they were half way to the vessel it was only by tremendous effort that they could keep the boat head to. The long pull was beginning to tell on them, and with the slow progress made it was evident the vessel would not be reached before night-fall; in fact it was a question whether they could reach her at all. The boat was therefore put about and headed back to the station, where they arrived late in the afternoon, after many hairbreadth escapes from swamping. The state of affairs was at once reported to the district inspector, Lieutenant McConnell, who was at Chincoteague, a few miles distant, with the revenue sloop Report. That officer immediately sent word to the keeper to meet him with the surf-boat at Chincoteague Inlet before daylight next morning for an early start down through the inside passages. Accordingly, at half-past 5 on the morning of November 1, the Report proceeded with the surf-boat in tow, the life-saving crew having left their station to meet that vessel at 3 o'clock. The sloop towed the boat as near to the stranded vessel as possible, the life-saving crew still having to pull some miles through narrow and tortuous channels after casting off before getting abreast the vessel to a point where they could land on the inner beach and haul the boat across the island to the surf, the men being assisted in taking the boat over by a party of some fifteen volunteers from the main-land, who had been attracted thither upon discovering the vessel ashore. The party reached the beach at a quarter past 3 in the afternoon, and at once put off to the schooner, the life-saving crew being accompanied by Lieutenant McConnell and one of the crew of the Report. The schooner lay in the breakers nearly a quarter of a mile from the shore. She had eight people on board, including the captain's wife, all but two—the mate and one of the seamen—being down with fever, the captain's wife being so ill that it was deemed unsafe to move her that day. As the vessel was lying easy, and there did not appear to be any immediate danger, the life-saving crew, at the captain's request, decided to remain on board all night. The surf-boat was accordingly hoisted on deck, clear of the surf, and the men told off into watches to keep the pumps going through the night. At 10 the next morning (November 2) the surf-boat was lowered and all hands safely landed, the captain, his wife, and two men being taken on board the revenue-cutter, which was lying at the anchorage where Lieutenant McConnell had left her the previous day, and conveyed to Chincoteague for medical treatment, the party arriving at that place at 7 in the evening. The life-saving crew returned at the same time to their station, being towed back to the place whence they started at the inlet by the Report. They were all quite exhausted by the arduous labor and exposure to which they had been subjected since the schooner was discovered from the station, about fifty-six hours previous. As soon as the Report arrived at Chincoteague the captain of the schooner telegraphed to Norfolk for the services of a wrecking company, who responded with all the haste possible, arriving the following day. The schooner was subsequently floated off without damage and with no other loss than that of her deck-load, which they were compelled to jettison to lighten her. The con-

duct of the life-saving crew upon this occasion was highly commended by the inspector.

November 1.—Information having reached the crew of Station No. 3, First District (Crumple Island, Maine), that a dismasted vessel had been sighted about five miles down the coast, the life-saving crew went at once in quest of her in their boat for the purpose of assisting her into port. After making diligent search for some hours, or until nightfall, they were compelled to return to the station unsuccessful, it being evident that she must have received assistance from some other source and reached a harbor in safety.

November 1.—At 3 o'clock in the morning one of the patrolmen from Station No. 3, Second District (Scituate, Massachusetts), discovered a vessel in danger of running ashore, being very close to the beach. He instantly burned a Coston signal, and the vessel thus warned at once tacked and stood off.

November 2.—The British brig *Zetland*, of Liverpool, Nova Scotia, bound from Turk's Island to Philadelphia, with a cargo of salt and a crew of nine men, encountered thick, drizzly weather, lost her reckoning, and at half-past 4 o'clock in the morning stranded three hundred and fifty yards from shore and two miles southwest of Station No. 30, Fourth District, New Jersey. Fifteen minutes later she was discovered by the patrolman, who hastened back to the station and gave the alarm. The keeper procured a team and had the surf-boat conveyed to a point nearly abreast of the wreck, at which he arrived at 6 A. M., finding the keeper of the next station (No. 31) already on the ground. This keeper accompanied the crew of No. 30 to the schooner through a rough surf, and they took ashore seven of the brig's crew. In the mean time the boat belonging to No. 31 had arrived and the keeper of that station returned with her to the brig and brought ashore the two men of the crew who remained on board and the crew's baggage. The captain of the *Zetland* had died on the 30th of October, and had been buried at sea. Vessel and cargo were a total loss.

November 2.—At 7.30 A. M. the schooner-barge *James F. Joy*, of Erie, Pennsylvania, bound from Bay City, Michigan, to Tonawanda, New York, lumber laden, with a crew of seven persons, one of whom, the cook, was a woman, while attempting to make Niagara River, in tow of the steamer *Empire*, during a dense fog, missed the channel and stranded on Lime Kiln Shoals at the head of the river on the Canada side. About an hour later the fog lifted, and the lookout at Life-boat Station No. 5, Ninth District (Buffalo, Lake Erie), discovered both vessels ashore. The keeper immediately manned and launched the surf-boat and pulled two and a half miles to the scene. The weather was fine and the water smooth, and no assistance being needed at the time, the life-saving crew returned to the station at 9.30 A. M. At 6 P. M. a messenger arrived at the station who reported that the *James F. Joy* was leaking badly and needed assistance. The surf boat was immediately manned and pulled off to her assistance. On arriving the surfmen relieved her crew at the pumps. At midnight the wind freshened and blew a westerly gale. The rising water floated off the barge and the life-saving crew then ran out her anchor and gave it the length of the chain. The vessel dragged down the river and past the water-works crib, bringing up to her anchor about five hundred yards above the international bridge. At the request of the captain the keeper went ashore and telephoned to Buffalo for a tug to take her up the river. At daylight the tug arrived. The life-saving crew then hove up her anchor, and after seeing

hersafely through the drawbridge returned to the station at 9.10, November 3.

The master of the James F. Joy gave the station crew the following testimonial:

“BUFFALO, November 2, 1881.

“This is to certify that Capt. Thos. Williams and his crew came on board of the schooner James F. Joy, of Erie, Pennsylvania, on the night of the 2d day of November, 1881, and rendered us assistance to pump ship all night, also in saving the vessel from going against the bridge and water-works pier, which would have materially damaged the vessel and caused loss of life, and also procured assistance by going after a tug, and saw us safe through the bridge on our way to Tonawanda, where we arrived all right in tow of the tug Maud S. I am well satisfied with the work that the life-saving crew has performed for me on the night above mentioned, and would recommend them as a verily good crew of men.

“WM. CHRISTIE, *Master.*”

The steamer Empire, which had stranded, as already stated, while towing the schooner, was visited at the same time by the life-saving crew, but could only be got off by tugs, which were procured, and the vessel released by their aid.

November 2.—A row-boat, having on board two men and a young girl of fourteen, which was going down the Manistee River towards the harbor, capsized when about a hundred feet abreast of Station No. 5, Eleventh District, Lake Michigan. One of the men swam to the dock and was helped out by the life-saving crew. The remaining man endeavored to swim ashore with the girl, who was his daughter, on his back, but she, being frightened, began to struggle violently, and dragged him under. The danger of the two being drowned was so imminent that there was no time for launching the boat, and the keeper, pulling off his outer clothing, swam out, caught the father and daughter as they were sinking for the third time, and succeeded in bringing them in to the dock, where they were helped up by the rest of the crew. They were Swedes, and as, not speaking English, they could not make themselves understood by the keeper, he took them to the home of a Swedish family near by, where they were cared for.

November 3.—On the day following the return of the crew of Station No. 7, Fifth District (Assateague Beach, Virginia), from the schooner Katie Collins, one of the patrolmen reported, at half-past 10 in the morning, another vessel apparently ashore several miles to the southward, in the vicinity of the Collins. The crew mustered at once, and the beach apparatus was placed in the boat and a start made with the intention of going to the vessel's assistance. The gale had subsided somewhat and the men experienced less difficulty in getting off than when they went over the same ground a day or two previous, although the sea was yet quite rough. After pulling some miles along the coast it became apparent that the supposed wreck was a steamer belonging to the wrecking company, which had come from Norfolk in response to the call for assistance from the captain of the Katie Collins, as before related. The men kept on some distance further, until thoroughly satisfied of the correctness of their conjectures, and then put about and returned to their station, where they arrived late in the afternoon, after a long pull, which was all the more exhausting from the fact that they had not yet recovered from the effects of their labors on the three previous days.

November 4.—The mid-watch patrols from Station No. 11, Third District (Easthampton, Long Island, New York), reported at an early hour the discovery of a steamer some miles off-shore, apparently at anchor, showing signals of distress. The surf was very rough, and the keeper deemed it imprudent to go off until daylight, a close watch being kept on the vessel in the mean time. When it was light enough, the surf-boat was launched and the life-saving crew went out, the vessel lying about four miles from the beach. She was the steam-collier Lancaster, of Philadelphia, bound home from Boston, in ballast, the vessel having been disabled the night before by the breaking of her shaft. The captain requested the keeper to telegraph to the owners at Philadelphia to send a steamer to tow him to port, declining, with thanks, any further assistance from the life-saving crew. The dispatch was forwarded as quickly as possible, and in response thereto the desired aid was sent, the Lancaster reaching port in due season without further mishap.

November 4.—At half-past 10 o'clock in the morning the crew of Station No. 1, Fourth District (Sandy Hook, New Jersey), put off in their surf-boat, in the midst of a furious westerly gale, to the assistance of the dismasted sloop Ocean Star, of Somers Point, New Jersey, anchored off the coast two or three miles south of the station. They reached the sloop by great effort, but before anything could be done by the life-saving crew a steam-tug arrived alongside and her offer to tow the vessel to New York was accepted by the captain. The return trip was even more arduous than that to the vessel, the boat narrowly escaping being blown out to sea, and the men being utterly exhausted by the time they arrived at the station.

November 4.—The steamer, John McDonnell, of Philadelphia, bound from Nansemond River, Virginia, to the former place, with a cargo of railroad ties and a crew of six men, encountered bad weather and sprung a leak. In this condition she stranded, in a storm and gale at midnight, on Carter's Bar. She was discovered about four miles distant by the patrolman of Station No. 10, Fifth District, (Cobb's Island, Virginia,) at about 6 o'clock in the morning, who at once reported her. She had filled immediately after striking, and her lights were put out and her cabin so flooded that her crew were unable to make any light to attract the notice of the patrol. When the life-saving crew reached her the sea was breaking heavily over her, only the top of her house being out of water, and on it the crew were huddled together, worn out with cold and exhaustion. They were taken on board the surf-boat and conveyed to the station, where they arrived at 9 A. M., and were furnished with dry clothing and a comfortable breakfast. At 11 A. M. the life-saving crew returned to the wreck and found the crew of Station No. 11 (Smith's Island) on board. The two crews united in fishing from the cabin such papers and articles of clothing as could be reached. Her sailors were sheltered and succored at the station three days. The vessel and cargo were a total loss.

November 4.—The schooner Westside, of Oswego, bound from Cleveland to Chicago, with a cargo of coal and a crew of seven persons, missed stays in attempting to make a harbor at Sand Beach, Michigan, and stranded on a reef just outside the harbor. The disaster occurred about 8 o'clock in the evening, during a northwest storm with snow, and the life-saving crew of Station No. 1, Tenth District (Lake Huron), at once manned the life-boat and went out to her relief through a heavy sea in company with the tug Kate Williams, rendering considerable assistance in running lines and getting her into the harbor, then assisted

to heave up her anchor and get her under way, and returned to the station.

November 5.—At half-past 7 in the evening, a large three-masted schooner was seen standing towards the beach at Hog Island, Virginia, and would have stranded without doubt a few moments later but for the promptness of the south patrol from Station No. 9, Fifth District, who quickly made signal with his Coston light, and thus warned the people on board of their danger; the schooner's helm being put hard down, she swung head off shore, just in time to clear the bar.

November 6.—The schooner Hickman, of Barnstable, Massachusetts, bound from Bangor, Maine, to Islip, New York, with a crew of five men, encountered a gale of wind when two miles south of Station No. 25, Third District, Long Island, in which she split her foresail, parted the main-peak halyards, and ran down before the wind to a point nearly abreast the station, where she anchored about half a mile out, at 3 o'clock in the afternoon. The next morning she set a signal of distress, and the life-saving crew at once manned the boat and went out to her. They found that the injury her foresail had received had rendered her unmanageable, and, boarding her, they spent two hours of hard work in reeving new halyards and repairing the foresail.

November 6.—At 2 o'clock in the afternoon, the crew of the station at Cape Henlopen, Delaware (No. 1, Fifth District), launched their boat and pulled half a mile from shore and recovered a vessel's mast, supposed to have belonged to a schooner wrecked a few days previous on the Joe Flogger Shoal, Delaware Bay.

November 6.—The schooner barge Jupiter, of Port Huron, Michigan, bound from Bay City to Tonawanda, New York, with a crew of six men and a cargo of lumber, and in tow of the steam-barge Mills, became water-logged and unmanageable during a gale in the night of November 5, and parted her tow-line. She dropped anchor off Presque Isle, Lake Erie, about three miles northeast of Station No. 6, Ninth District, Erie. At daybreak, she was sighted by the life-saving crew, who manned the surf-boat and went out to her assistance. She was found to be in a bad condition. The captain requested the life-saving crew to return to town and procure a tug to tow the Jupiter into port, which they did. They then returned to the barge, assisted in running lines, heaving up anchor, and getting her into port.

November 6.—At half past 4 in the afternoon the lookout at Station No. 8, Tenth District (Forty-Mile Point, Hammond's Bay, Lake Huron), discovered a small boat, a mere speck upon the water, about six miles distant, to the north of the station, drifting out into the lake, apparently unmanageable. Two of the life-saving crew at once put off in a sail-boat to the rescue, the wind at the time blowing hard enough from the southeast to compel them to double reef their sails before starting. The boat was reached at about dusk, some miles out from the land, with a man and a boy in it, both of them wet to the skin and nearly perished with the cold, their boat being half full of water. They were at once transferred to the rescuing boat, and their own frail craft, which was little more than a skiff, taken in tow to the station, where the two sufferers received every care and attention until completely recovered and able to return home. Darkness overtaking them without succor would have been fatal, for they could never have survived the night in the condition they were in when found.

November 7.—At 3 o'clock in the afternoon the new steamer Baton Rouge, of Saint Louis, bound without cargo from Jeffersonville to her hailing port, and having on board a crew of twenty-five persons, while

descending the Falls of the Ohio in charge of a pilot, stranded on the left-hand reef of the falls in consequence of a change in the current. The keeper of station No. 10, Ninth District (Louisville, Kentucky), immediately launched the life-boat and went with his crew to the rescue. They ran a hawser from the vessel to the Government mooring-buoy, landed the pilot and two others, laid an anchor and hawser for the steamer and assisted her crew to get a strain upon the hawser. From this time forward they maintained communication between the vessel and the shore, carrying her crew and other assistants to and fro, day and night, whenever required, assisting at the windlass when it was necessary, carrying out supplies of food and fuel, and watching the steamer by night until November 24, seventeen days after the stranding. On that day there was a sudden rise of water, and the vessel floated off the rocks and swung round. Having steam on at the time, her hawsers were cut away and she passed safely over the falls.

November 7.—The schooner Rover, of Manitowoc, Wisconsin, carrying a crew of two men, and bound from Fish Creek to Two Rivers, in the same State, with a cargo of tan-bark, stranded on the bar while entering the harbor at the last named place, about one hundred feet west of Station No. 17, Eleventh District (Lake Michigan). The accident took place at about 11 o'clock in the morning, and the life-saving crew were quickly on hand to aid in getting the vessel afloat. The sea was quite rough and caused her to pound heavily. As there were no lines on board the schooner suitable for the work of relieving her, the station hawser was brought into use, and in a short time the life-saving crew succeeded in getting her afloat. When about to proceed up the harbor, however, it was found that her rudder was disabled. In this dilemma, with no steam-tug on hand to tow the vessel, it became necessary to repair the damage at once. The schooner was therefore hauled in to the wharf near by, and enough of the cargo removed to lighten her and enable them to put the rudder in working order again, the captain upon leaving expressing his grateful acknowledgments for the timely services of the life-saving crew.

November 8.—The keeper of Station No. 10, Ninth District (Louisville), went out at 4 o'clock in the afternoon to the rescue of a man and two women in a boat which had got into the strong current and was being carried over the falls. The boat was taken in tow and got into still water.

November 8.—The north patrol from Station No. 1, Tenth District (Sand Beach, Michigan), when passing abreast of the steamboat wharf at that place on his way back to the station, shortly before 8 o'clock in the evening, was startled by a loud splash, as though some one had fallen overboard. Hurrying down the wharf in the direction of the sound, he soon discovered a man struggling in the water. A line was quickly thrown to the drowning man, and, with the aid of some men whom the surfman had summoned to his assistance, the poor fellow was lifted safely onto the wharf. It was fortunate that the watchful patrolman happened to be passing at the time and heard the splash, for the man was completely under the influence of liquor, and as he uttered no cry for help he would have been drowned in a few moments.

November 9.—A vessel's quarter-board, bearing the name Viola May, was cast ashore in the vicinity of Station No. 7, Second District (Peaked Hill Bar, Cape Cod, Massachusetts), and as the weather was foggy, and the crew feared that a vessel of that name had been wrecked in the vicinity, they launched the surf-boat and pulled several miles up and

down the coast on either side of the station. Their search was not, however, rewarded by the discovery of any vessel.

November 9.—At 10 o'clock at night one of the patrolmen from Station No. 10, Fifth District (Cobb's Island, Virginia), sighted a vessel standing in over the shoals, and in danger of stranding. He at once flashed his Coston signal, and the vessel, thus made aware of her peril, immediately tacked and went off shore.

November 9.—The schooner *Otsego*, of Au Sable, Michigan, bound from that place to Sand Beach, Michigan, heavily laden with lumber, and having on board five passengers and a crew of three men, broke her center-board and became disabled. Failing, in this plight, in the endeavor to make the harbor at Sand Beach, she dropped her anchor, which, however, proved too small to hold her, and she began to drag out fast into the lake, where, although the weather was not stormy, she would probably have foundered, being really not seaworthy through her injuries, and besides very heavily loaded. In this situation she put up signals of distress, which were seen immediately at Life-saving Station No. 1, Tenth District. It was then nearly 8 o'clock in the evening, and the vessel was about a mile and a half from the station. The keeper at once manned the surf-boat and rowed out to the schooner. Ascertaining her condition, he had her five passengers conveyed ashore, and sent out a tug to her, which safely towed her into harbor.

November 10.—At 11 o'clock in the morning the schooner *Aurora*, of Machias, Maine, bound from Boston to Millbridge, Maine, with three men and no cargo, split her sails in a squall when about twelve miles southwest of Station No. 5, First District (White Head Island). Her crew managed with part of the mainsail and jib to get under the lee of White Head Island. About half an hour before she reached her anchorage she was discovered by the station patrol, but as a strong northwest wind with squalls was prevailing, nothing could be done to enable her to continue her voyage until the wind moderated. A careful watch was kept over the vessel during the afternoon and night, and the following morning, the wind having abated, the life-saving crew boarded her with the surf-boat at 7 o'clock. Their proffered assistance was gladly accepted. They got up the schooner's anchor, and using her jib and the reefed mainsail (the latter was split badly below the single reef), they beat her into Seal Harbor. Here, after anchoring, they repaired her sails so that she was in condition to continue her voyage the next day.

November 10.—At an early hour a surfman of Station No. 3, Third District (Block Island, Rhode Island), reported to the keeper that he had seen the red light of a patrolman burning near Napatree Point, about three and a half miles distant. The keeper, by the aid of the marine glass, was able to distinguish a schooner, with part of her mainsail up, lying stern to the wind, and flashing signals of distress. She appeared to be on the rocks at or near the place where the schooner *Open Sea* was wrecked two years previously. The keeper at once roused the crew, and the surf-boat was launched and pulled for the schooner, which proved to be the *Mary H. Stockham*, of Philadelphia, bound from Elizabethport, New Jersey, to Gardiner, Maine, with a crew of six persons and a cargo of coal. She was on the sands a few yards distant from the place where the keeper had located her. The tide was rising, and the vessel was beginning to move, heading for the rocks. The life-saving crew immediately set to work to tow out the long hawser, with the kedge attached, and place it at a point to windward, after which, by means of the forward capstan, a strain was hove on the hawser

sufficient to keep the schooner's bows from falling off towards the rocks as the tide rose. The life-saving crew then assisted the sailors to get sail on the vessel, and after her anchors had been recovered she proceeded on her way all right.

November 10.—One of the patrolmen of Station No. 21, Third District (opposite Bellport, Long Island, New York), found a yawl in the surf abreast of the station. It was hauled to a place of safety by the life-saving crew and notice thereof sent to the New York Herald for publication. This had the desired effect, for in a few days the boat was claimed in a letter from the agent of the owners of the New York pilot-boat Ariel Patterson, from which vessel it had been lost. The life-saving crew, as requested by the person thus claiming the property, took it across the bay to Bellport and forwarded it by railroad to New York.

November 11.—The schooner Aurora, of Machias, Maine, carrying a crew of three men, bound to Millbridge from Boston, in ballast, experienced heavy weather on the trip, and during the prevalence of a severe squall from the northwest lost and split some of her sails. This occurred at 11 o'clock in the forenoon of November 10, White Head Island bearing northeast about twelve miles distant. In this partially disabled condition the schooner managed to work up under the lee of White Head Island, where she anchored at half-past 2 in the afternoon, in sight of Station No. 5, First District. The station crew saw her anchor and understood her condition, but as she was in no danger of going ashore, and nothing could be done for her while the gale lasted, the keeper ordered a special watch kept on her until opportunity offered for boarding her. The next morning (November 11), at 7 o'clock, after the wind had abated somewhat, the surf-boat was launched and the life-saving crew went on board and offered assistance. The captain of the schooner gave them glad welcome, as with his small crew he had been able to do but little in repairing damages. The keeper at once took charge and hove up the anchor, and with snug canvas on the vessel (close-reefed mainsail and jib) beat her up into Seal Harbor, where she was safely anchored, after which the life-saving crew helped repair the sails and place the schooner in condition to resume her voyage the next day, upon the subsidence of the gale.

November 11.—The crew of Station No. 10, Ninth District (Louisville) at half-past 7 in the evening, heard cries of distress from the cross-dam of the Falls of the Ohio, and hastening out in the boat, rescued a man named Peter Juntz, who was found standing on the overflowed pier, with the water fast rising around him, and he in danger of being swept off and drowned.

November 11.—The captain of the barge Bertchie reported at Station No. 1, Tenth District (Sand Beach, Michigan), the loss of the barge's yawl, which had gone adrift out of the harbor. As he had no means of recovering it, three of the life-saving crew at once started in search, and found it about a mile and a half north of the station, with two holes stove in it. After repairing the damage so as to make the boat manageable, it was taken to the station and restored to its owner.

November 11.—A boat belonging to the city, stolen from Lincoln Park, Chicago, by three men, on November 10, and used by them to fish from some crib-work three miles from Station No. 11, Eleventh District, got loose in the afternoon, drifted ashore, and broke up on the beach, leaving them to spend the night on the crib, surrounded with water and unable to get ashore. Their plight was reported at the station by a policeman at half-past 8 in the morning (November 11), and the surf-boat was at

once launched and pulled out to their aid through a heavy sea, arriving near them at half-past 10, not without having shipped a great deal of water, the wind and sea being astern. The three men were safely got on board, and the boat, not being able to land in the neighborhood on account of the stone-paved beach, which would have broken her to pieces, was let drop down with the current until a sand beach was found, where she landed. On her way down with the current a sunken rock stove a hole in her bottom. Immediately upon landing, the three men were arrested and locked up for their larceny.

November 11.—The crew of Life-boat Station No. 14, Eleventh District (Racine), Lake Michigan, had occasion to render service during what, up to that date, was the severest storm of the season. There was a heavy gale, with rain, from the southwest, the breakers ran in terrible mounds, and all around the piers at the entrance of the harbor was a mass of furiously sheeting foam. The life-saving crew, on the watch for disaster, noticed toward sundown several vessels running north for safety under bare poles, and two of them made safely into the harbor of Racine. Observing this, the master of the schooner *Lavinda*, of Chicago, bound to that port from Hamilton, Michigan, with a cargo of shingles and a crew of five men, endeavored, having already run past, to make the same haven, but, involved in the heavy breakers at the harbor's mouth, the vessel became unmanageable, struck the south pier with such violence that she stove in, immediately became water-logged, and in five minutes was a wreck. While she wallowed helplessly around, sinking and beating herself to pieces on the pier, the life-saving crew sprang for the life-boat and put out to her assistance through the tumbling seas. By sturdy effort they got alongside and managed to run a line from the wrecked vessel to the steam-tug *R. Wetzel*, which had steamed out to her relief, and soon got her in tow and safe into harbor. It was half-past 5 in the afternoon when the disaster occurred. The heavy sea prevented the return of the life-boat into the station, and the men moored her in a safe place up the river until the storm abated.

November 12.—The schooner *H. A. Lamars*, of Cleveland, bound from Port Stanley to her hailing port, laden with wood, and having a crew of five men, sprung a leak during stormy weather and became water-logged. In this condition she was seen by the crew of Life-saving Station No. 7, Ninth District, Fairport, Lake Erie, when about two hundred yards east of the harbor, endeavoring to effect an entrance. The crew watched her for two hours, and perceiving that she was being carried by the heavy sea and current to leeward of the harbor, they prepared to launch and went out to her. It was then a little after 6 o'clock in the evening. The life-saving crew assisted in giving her more chain, and as the seas were breaking over the vessel and endangering their boat, they got the sailors aboard as quickly as possible and took them to the station, where they were provided with food and beds. The seamen were much exhausted, having been at the pumps twenty-four hours without food. The next morning, November 13, the captain got a tug to tow the schooner inside, but the sea ran so heavy the tug could not get alongside. The surf-boat was again launched, and rendered assistance by taking the vessel's crew aboard, and, running a line from the tug to the schooner, assisted in heaving up her anchors. The anchors had fouled, and one of them had to be abandoned. Finally, when the tug steamed off with the schooner, the latter was dragged into the trough of the sea and rolled over. The surf-boat, which was also in tow, hastened to the rescue, got all hands aboard, and again took them

to the station; where they remained four days. The vessel and cargo were lost.

November 12.—At 8 o'clock in the evening the schooner Homer H. Hine, of Vermillion, Ohio, bound from Au Sable to Cleveland, with a crew of five men and a cargo of lumber and shingles, unshipped her steering-wheel and lost her rudder in a somewhat rough sea, though the weather was clear. The accident happened about twenty-four miles southeast of Station No. 1, Tenth District, Sand Beach, Lake Huron, and eight miles from shore. The vessel made signals of distress, and a dispatch was immediately sent to the life-saving station, requesting the keeper to send the tug Oswego to her relief. The life-boat was manned and went out to the tug, but the captain was not willing, in view of the rough sea, to go out before daybreak, and the keeper then engaged the tug Balize, and put the life-boat and its crew in tow of her. They reached the schooner at midnight, and found her in the condition above described and also leaking. The keeper put half his crew on board of her to assist in heaving up the anchor, which occupied two hours, the vessel having out not less than sixty-five fathoms of chain. At 2 o'clock in the morning, everything being in readiness, the tug started back to port with both schooner and life-boat in tow. The assistance rendered by the life-saving crew was important, for the vessel's crew was not sufficient to heave in the chain, which, together with the anchor, would have had to be abandoned but for the aid rendered.

November 12.—On November 11 the steam-barge H. C. Schnoor, of Cleveland, bound from Toledo, Ohio, to Alcona, Michigan, laden with lumber and having on board a crew of twelve men, struck on the bar off Alcona at 11 o'clock at night, about three hundred yards from the shore. A strong southeast gale prevailed at the time, and there was a heavy sea. At 8 o'clock in the morning of the next day (November 12) a team came with the news from Alcona to Station No. 5, Tenth District, (Sturgeon Point), about four miles and a half from the scene of the disaster. The keeper at once got ready to start for the wreck, and in half an hour was on the road (which was a bad one) with two teams, one bearing the wreck ordnance and the other the surf-boat. An hour later they arrived, and launched the surf-boat, but the surf was so heavy that they failed to get alongside the barge, and were obliged to return with the boat partly filled with water. The wreck-gun was then resorted to, and the gear having been set up, the mate was brought ashore by the breeches-buoy. Before operations could be continued a mischance occurred. The life-saving crew were obliged to work from a point of land so narrow that they could not spread sufficiently to keep the lines apart and prevent them from intertwisting, and the heavy current caused the lee part of the whip-line to foul with the hawser. Before the lines could be cleared the wind fortunately changed and beat down the sea, and the surf-boat was launched and took the captain (who had been on shore at Alcona) and the mate back to the barge. The immediate danger having ended with the subsidence of the wind and sea, the life-saving crew returned to the station in the afternoon. The next day (November 13) they went out in the surf-boat at a little after 1 o'clock and worked until half-past 4 in running lines from the barge to the tug Mocking Bird, which at that hour succeeded in pulling her off.

November 12.—At 7 o'clock in the morning, during a southeast gale, the crew of Life-saving Station No. 13, Eleventh District (Kenosha, Lake Michigan), sighted the schooner E. P. Royce, of Ludington, Michigan, flying a signal of distress in a heavy sea about ten miles out. The vessel was

bound from Ludington to Chicago, with a cargo of lumber and a crew of six men, together with a woman, the captain's wife. The life-boat was at once manned, and reached her in an hour. The life-saving crew found her full of water. She had sprung a leak during the night and become water-logged. They let go her anchors, and then started in the life-boat for Racine, in order to procure a tug, taking with them the captain's wife and two of the men, who were entertained at Life-saving Station No. 14, at that port, as the other seamen were subsequently. Reaching Racine by 9 o'clock, the life-saving crew procured two tugs, with which they returned to the wreck and worked on her until they got her into Racine, at 5 o'clock in the afternoon. The captain expressed himself in grateful terms to the life-saving crew, without whose aid he said his vessel and crew could not have been saved in the heavy sea then running and the strong southerly gale.

November 14.—The schooner C. W. Dexter, of Calais, Maine, bound for Boston from her hailing port, with a cargo of lumber and a crew of four men, dragged her anchors while getting under way, and stranded near Long Point, Spruce Head, about a hundred yards from shore and a mile and a half from White Head Island, coast of Maine, the location of Life-Saving Station No. 5, First District. Intervening land and trees separated the vessel and the station from sight, and the captain, after a fruitless attempt to kedge off the vessel, sent a boat's crew around to the station for assistance. They arrived at 10 o'clock in the forenoon, and the station men manned the surf-boat with alacrity, and in half an hour were alongside of the schooner. Her anchors were under her bows, and they hove them up, unshackled the chain, bent on a hawser, carried out an anchor and line, took up the kedge, and waited for the tide. By 4 o'clock in the afternoon it flowed, and they hove off the vessel; then made sail, took her into Seal Harbor, anchored her, furled her sails, and returned to the station.

November 14.—The yacht *Bunnie*, of Tom's River, New Jersey, going about noon, with one man on board, from Squan to Barnegat, having split her mainsail in a sudden change of wind, was in danger of being capsized, and set a signal of distress, which was responded to by the crew of Station No. 11, Fourth District (Swan Point), New Jersey, who went out to her in the surf-boat, worked her in under cover of the beach and anchored her. The man on board remained at the station until the next day, when the keeper detailed a member of the crew to pilot him in the yacht to Barnegat.

November 14.—At half-past 3 in the morning the surfman on patrol southward from Station No. 15, Sixth District, to the north of Oregon Inlet, North Carolina, sighted a steamer running dangerously close to the beach. He at once burned his Coston signal, and the vessel taking warning from it quickly altered her course just in time to avoid striking on the shoals off the inlet.

November 14.—The barge *Bay City*, of Port Huron, bound from Buffalo, New York, to Harrisville, Michigan, with a cargo of hay and a crew of seven persons, stranded in heavy weather, at half-past 7 in the evening, about four miles south of Station No. 5, Tenth District. The crew of the station went out to her, but found that nothing could be done for her until the arrival of a tug and steam-pump for which the captain had sent. The next day the crew again rowed out to her in response to a signal she had set, but upon reaching her found that she had been just pulled off by the tug.

November 15.—At 9 o'clock in the morning the crew of Station No. 4, Third District (New Shoreham, Block Island), went off in their boat

to the assistance of two men who had gone out fishing and were in danger of being blown to sea by the severe gale which had sprung up during their absence, the men being utterly unable to get back without aid. The life-saving crew succeeded in bringing the men and their boat back into the harbor.

November 15.—At 1 o'clock in the day, while a gale was raging over Lake Ontario, Keeper Doyle, of Life-saving Station No. 4, Ninth District (Charlotte, Lake Ontario), was notified that the custom-house had received a telegram stating that a vessel was in distress and drifting in toward the beach near a high bluff known as The Devil's Nose, about twenty-two miles west of the station. Several boards and staves, inscribed with supplications for help, had drifted ashore in the neighborhood and been found upon the beach. It was evident to the keeper that the vessel in question was the schooner Marquis, of Toronto, Canada, 424 tons burden, bound from Fair Haven, New York, to that place, with a cargo of coal and a crew of eight men, which had been in tow of the steam-tug Robb on the night of November 14, and on account of the severity of the gale and the breaking of the tow-line had to be abandoned at sea by the Robb, which had run into the harbor at Charlotte for shelter by 9 o'clock in the morning of December 15, at about the time that the unfortunate Marquis, dismasted, and, with her steering-gear broken, was tumbling helplessly in upon The Devil's Nose, with the wash of a heavy surf pouring over her. The brave keeper at once determined to go to the assistance of the distressed vessel, although the twenty-two miles distance at which she lay placed her beyond the scope of his duty; and gathering his crew of eight men, seven of them enrolled surfmen and one a volunteer, he started down to the steam-tug Robb to engage her to go with him and his men in search of the wreck. The master of the tug consented, and began to get up steam, while the life-saving crew put the surf-boat on board, together with the Lyle gun and apparatus. The tug was soon ready for the start, and was wearing around for her voyage when she was hailed from the pier with the news that her rudder was unshipped. Upon examination this was found to be the case, and the keeper and his men left the unnavigable vessel, taking on shore the surf-boat, wreck-gun, and apparatus. The surf-boat was at once placed upon its carriage, the station cart loaded with the wreck-ordnance and hauling-gear, and four stout horses were harnessed up to haul this double load to the scene of the wreck.

The keeper and his men piled in with the boat and apparatus, and at 3 o'clock in the stormy afternoon they set out on their rough and serious journey. They held their way within sight of the lake for about two miles, when a detour became necessary, caused by the obstacle of a body of water known as Braddock's Bay, which makes in from the lake, communicating therewith by a species of gap or outlet, like a neck, in which the water was seven feet deep. As it was impossible for the horses to ford this gully, the rescue-party were obliged to take a road running around Braddock's Bay; and as this road, for the distance of seven miles from Charlotte, would keep them five miles back from the lake, thus rendering it impossible to catch sight of the wreck in case she should come drifting down toward them, the wary keeper detailed one of his men to keep along shore in sight of the water, and meet them seven miles on, at a point where the town road ran near it.

The patrolman obeyed his instructions, seeing nothing of the vessel in his trudge along shore, and rejoined the rescue party at the point named. The indomitable march then continued along the miry road in the gathering twilight, through a region of woods and farms, sparsely

inhabited. Whenever the lake was neared inquiries were made at the nearest house, or of any stray wayfarer, in regard to the wreck. As evening fell it was definitely ascertained that the vessel was lying near The Devil's Nose, and the party pushed on with renewed energy and ardor. The darkness of a stormy night soon obscured the region, and the most serious part of the toilsome journey through an impeding gloom was now entered upon. In brief, for more than six hours the dark march of the men and horses continued over the tempest-beaten road, and it was in the dead of night, or about half-past 1 o'clock (16th), that the little band caught sight of the vessel's lights out in the murk above the sea.

In a few minutes they were on the beach, and two of them quickly lighted a fire, while the others, seeing that the wreck was held by her anchors, launched the surf-boat through the flying breakers and pulled out to her. They boarded her, and found the main and mizzen masts gone and the iron castings of the steering-gear broken. The foremast stood and the hull was sound. The keeper concluded that the rudder-head should be mortised and fitted with a tiller, to enable the vessel to be steered, and he and his men returned to the shore to get a piece of timber of which to fashion a tiller, taking with them the captain, who desired to procure some ship-stores, the vessel being without provisions. They landed near the fire, which now lit the beach and the wild play of the waters. Provisions were obtained at a neighboring farm-house, and a stick of timber hewed from the adjacent woods, and the men again pulled out to the schooner. All hands now fell to work at clearing the wreck and getting ready for the voyage to Charlotte, whither Keeper Doyle intended to take her. As morning dawned, however, a steamer was seen coming from the east, and proved to be the Robb, which had repaired her rudder and come out to the relief of the Marquis. As the wind was now moderating and canting to the south, it was concluded that the Robb should take the schooner in tow to Toronto, and accordingly, at half-past 9 that morning, the tug started with her convoy, and the life-saving crew pulled back to shore. There they loaded the boat onto its carriage, and returned as they had come, arriving at the station at Charlotte by half-past 6 o'clock in the evening, thus ending their heroic toil of over thirty hours.

November 15.—At 2 o'clock at night the barge Cyclone, of Buffalo, bound from Bay City, Michigan, to Tonawanda, New York, with a cargo of lumber and a crew of seven men, together with the captain's wife, in tow of a tug, parted her tow-line off Mohawk Light, about thirty-five miles west southwest from Buffalo. She soon worked into the trough of the sea, became water-logged, and lost the greater part of her deck-load. At half-past 8 o'clock in the morning the lookout of Station No. 5, Ninth District (Buffalo, Lake Erie), discovered her being taken in tow by the steamer Conestoga, and reported to the keeper. When the vessel arrived at the pier the life-saving crew went on board, moored her, and conducted her exhausted crew to the station, where they remained about six hours, and were provided with dry clothing and nourishing food; the captain and his wife being accommodated on board a tug.

November 15.—The schooner G. H. Ely, of Cleveland, bound from that place to Black River, Ohio, in ballast, with a crew of seven men, was in tow of a tug during the night off Cleveland, when a northwest gale set in, with thick weather and a high sea, and the tug was compelled to let her go. The schooner then dropped her anchors, but dragged until, at 2 o'clock in the morning, she struck the west pier at the entrance of Cleveland Harbor, when the crew of Station No. 8, Ninth District,

came to her assistance. The keeper procured a tug, went out to her, and ran a hawser from her to the east pier, where he had already stationed a portion of his men, who hauled taut upon the line, while those on board slipped her anchors. The tug then took her in tow to a place of safety. The life-saving crew subsequently assisted in recovering her anchors.

November 15.—The three-masted schooner John Schuette, of Milwaukee, Wisconsin, bound from Escanaba, Michigan, to South Chicago, Illinois, with a cargo of iron ore and a crew of seven men, struck the bar about three hundred yards from shore, at 2 o'clock at night, while endeavoring to come into Sheboygan, and began to pound very heavily. The wind was brisk at the time and the sea high. The patrol of Station No. 16, Eleventh District, saw her at once and reported the disaster at the station, and in a quarter of an hour the surf-boat was alongside. The life-saving crew found her lines all frozen and in bad condition, and, pulling back to the station, got the 4½-inch hawser, one end of which they fastened to the vessel and the other to the weather pier, then, heaving in upon the capstan, they got the vessel off the bar, hove her to the south harbor piers, and worked her up the river to a safe anchorage by 8 o'clock.

November 16.—The schooner Dauntless, of Cherrystone, Virginia, bound from Cobb's Island to the former place with a cargo of oysters and a crew of three men, stranded on the shoals of the middle ground between Bone and Cobb's Islands, about a mile from shore, at 7 o'clock in the morning. She was almost immediately discovered by the keeper of Station No. 10, Fifth District, who had the surf-boat launched and pulled out to her. The life-saving crew ran out her anchor, hove the cable taut, and waited for the tide to rise. As soon as the schooner began to lift on the flow they hove her off, and she went safely on her way.

November 16.—The schooner Nevada, of Oswego, New York, bound from Cape Vincent, Lake Ontario, to Erie, Pennsylvania, with a crew of eight persons, and laden with iron ore, misstayed and went ashore at 5 o'clock in the morning on Presque Isle, about one mile and a half north of Station No. 6, Ninth District, Lake Erie. She was discovered at once by the life-saving patrolman and reported to the keeper. The surf-boat was launched and manned without delay and pulled out to her assistance, arriving alongside at 5.30 A. M. The schooner was lying easy and in no immediate danger. At daylight the tug Erie was signaled, and when she came up the life-saving crew assisted in running hawsers and getting her safely into port; which was accomplished in about four hours, the vessel having sustained but slight damages.

November 17.—At half-past 7 in the evening the south patrol from Station No. 9, Fifth District (Hog Island, Virginia), sighted a vessel standing too close in towards the beach. He instantly gave warning of her danger by swinging his lantern and then burning a Coston light. The vessel at once attempted to go about. She was not quick enough, however, for in going in stays she grounded on the bar at the inlet. Fortunately the tide was coming in, and before the life-saving crew could reach her in their boat, as they endeavored to do, she swung clear and stood off-shore.

November 17.—The crew of Life-saving Station No. 8, Eleventh District (Muskegon, Michigan), had a rough time on this date. A fresh southwest gale was streaming through the thick atmosphere, and there was a tremendous surf and sea. About daylight the station lookout saw from the north pier at Fort Sherman a vessel (which proved to be the schooner Espindola, of Milwaukee, bound therefrom to Muskegon,

with a crew of three men and no cargo), lying at anchor abreast of a bluff about a mile from shore, in the locality called The Scotch Bonnet, about five miles northwest of the station. The schooner had a reefed main-sail set, and was flying a flag at her main-topmast, whether union down or not the distance made it impossible to discern. Supposing she wanted a tug, the keeper crossed the river and notified several tug captains, all of whom, however, refused to go to her, averring that she was too near the bar to enable them to be of any assistance to her. Lieutenant Walton, at that time assistant inspector, who had been notified by the keeper and accompanied him to the piers, then ordered the crew to launch, and definitely ascertain what the schooner wanted. In a few minutes the surf-boat was outside and pulling through the heavy sea, which was quartering, or chasing her astern, and with such force that once, in the act of heading to it, the oars were unshipped from the thole-pins and two of them lost, the crew letting them go and resorting to the spare oars to prevent the boat being overturned. In the meantime the schooner had dragged her anchors, and went clean onto the beach under the bluffs—so high up, in fact, that two young fellows of her crew jumped overboard into two feet of water and landed; the third man, the captain, had left the vessel some time before in a boat in quest of a tug, been capsized and nearly drowned, reaching the shore in a state of unconsciousness. Not knowing that she was deserted, the life-saving crew, upon getting abreast of the vessel, began to back in towards her, stern first. Just as they got to the outer bar a big green sea combed over the boat from stem to stern, filling her to the gunwales and floating the oars up out of the pins. The boat had hardly recovered from this savage onset, and the keeper was trying to head her to the next coming sea when the steering-oar broke in his hands. The boat at once fell off broadside to, and the huge comber rolled her over, bottom up, shooting her men from her at one discharge into the sea. Sustained by their cork belts they at once struck out for the beach. The undertow was awful, but despite its strength they all contrived to land, and were met by the men from the stranded schooner, from whom they learned the situation of affairs. The boat presently came tumbling in within reach, and was seized and hauled up on the flood-wood which strewed the shore. She had sustained little damage beyond splintering her bow and stern benches. The steering-oar and one other had been broken, and the heaving-stick and boat-hook, with their lines, were lost. These losses and damages, however, were sufficient to decide the keeper not to return in her to the station against the heavy gale and sea, and Lieutenant Walton, having arrived upon the scene on foot, hired a team and had the boat taken to the station, whither the crew also got back by 5 o'clock in the afternoon, uninjured from their rough adventure, but wet to the skin and very hungry. The schooner was subsequently got off by a tug.

November 17.—At about 11 o'clock in the forenoon the British ship Edith Lorne, of Dundee, bound from Portland, Oregon, to Queenstown, for orders, with a cargo of 1,250 tons of wheat, and having nineteen men on board, including the pilot, while standing out over Columbia River Bar, by way of the north passage, stranded on the Middle Sands at a point known as The Elbow, on the south side of the channel. The disaster was quickly discovered by the keeper of the life-boat station, two miles distant, at Cape Disappointment, Washington Territory (No. 3, Twelfth District), who at once fired an alarm-gun and proceeded to muster a volunteer crew, there being then no regularly paid force at that station, as before stated in this record. Two men came hurrying

from a place called Illwaco, a mile or two distant, in response to the signal, and six more were obtained from the British ship *Napier*, anchored in the bay. The ill-fated ship lay in the breakers, and it was feared her crew would attempt to lower their own boats, in which case some if not all of them would certainly be drowned. The rescuing party therefore put off as quickly as possible in tow of a steam tug, which dropped them a mile and a half from the ship, unable to approach nearer; the men then taking to their oars and pulling the rest of the distance, reached the vessel at 2 o'clock. As the situation was one of great danger, and the seas were breaking completely over the vessel, the captain decided, after consultation with the pilot, to abandon her at once. Ten of the crew were therefore taken into the boat without waiting for their effects, and, after a hard pull through the heavy sea, put on board the tug which awaited them in the south channel. It was 5 in the afternoon when the remaining nine men were taken off, the ship at that time pounding in such a manner that the captain expressed the greatest apprehension that the spars would tumble about their heads before the boat could shove off. When the landing was reached, at about 6 o'clock, all the men but the captain and pilot were provided with quarters at Fort Canby, the keeper conducting the two latter to his home. The volunteer crew behaved with great gallantry, and it was no doubt due to their excellent conduct, under the experienced directions of the keeper, that not a life was lost by this disaster. During the night the ship drove over the shoals, and by daylight the next morning (November 18) she lay sunk on the farther side of the south channel, near the edge of Clatsop Spit, and it was only after many hours of extremely dangerous and difficult work that the wrecked men, who had now in turn manned the life-boat, were enabled, under the leadership of the keeper, to save their personal effects by fishing them up through the open hatches of the submerged vessel, the boat making two trips on that day and returning with the last load at 8 o'clock in the evening. The ship and cargo were a total loss.

November 18.—At half-past 8 o'clock in the evening, during a heavy northeast gale, the British schooner *Russia*, of Toronto, Canada, bound from Port Maitland, Canada, to Erie, Pennsylvania, with a cargo of barley and a crew of six men, failed to obey her helm, owing to the heavy current, while endeavoring to make her harbor, broached to, came into collision with the Presque Isle pier with a shock that knocked the beacon light-house off its foundation, and at once began to pound with terrible violence upon the pier. The keeper of Life-saving Station No. 6, Ninth District (Erie, Lake Erie), rushed with his men to her assistance, and succeeded by means of hawsers in holding her to the pier. The sea, however, was so heavy, and so increasing in fury all the time, that the vessel continued to strike the pier, and soon with such violence that the keeper burned two red Coston lights in succession to summon a tug to her relief. As none came, he dispatched two of his men in a dingey up to Erie (about a mile and a half distant) to summon one, and as the vessel was fast filling, and he and his men expected to see her knocked to pieces every minute, they helped the crew to get onto the pier, and then, under the master's orders, assisted in letting go the hawsers. The released vessel recoiled from the pier into shoal water, where she sunk in a few minutes. The crew were taken to the station, furnished with dry clothing, and made comfortable. They remained under succor for four days and a half.

November 18.—The schooner *John O. Thayer*, of Sheboygan, Wisconsin, bound from Erie, Pennsylvania, to that port, with a cargo of coal and a crew of eight men, struck the bar and stranded about three hundred

yards from the beach, at 2 o'clock in the afternoon, while endeavoring to enter the harbor of Sheboygan. A northeast gale prevailed at the time, and there was a heavy sea. The disaster was instantly seen at Station No. 16, Eleventh District, some quarter of a mile away, and as the surf was too heavy at the harbor's mouth to be safely pulled through, the boat was dragged out on the beach abreast of the vessel, launched, and the eight men on board speedily landed. They were powerless to help themselves, their own boat being full of water from the seas that sheeted over the schooner. They remained for a day at the station, where they were well cared for. On the 23d of November, the life-saving crew helped them to strip the vessel, and they continued to work in pumping her out, but their labors were useless, for she worked down into the quicksand, was soon rail under water, and continued to slowly break up, and became a total loss.

November 18.—During a northeast gale and snow-storm, the schooner Nancy Dell, of Chicago, bound from Frankfort, Michigan, to Sheboygan, Wisconsin, with a cargo of lumber and a crew of four men, struck the south harbor pier at Sheboygan in attempting to enter the harbor in a high sea, and, recoiling, fell away and stranded about five hundred yards from the pier and two hundred yards from shore. The disaster took place at 8 o'clock in the evening, and the crew of Station No. 16, Eleventh District, about a quarter of a mile distant, at once launched the surf-boat and pulled out alongside. The schooner's crew, however, refused to go ashore until morning, and the life-saving men, unwilling to leave them in so hazardous a situation, rowed to the beach, upon which they built a fire and bivouacked. At 1 o'clock in the night the yawl of the schooner, swept in upon the beach, full of water, and at 2 they heard a horn on board the schooner, blaring through the darkness in a call for aid. They instantly manned the boat and went out, finding, when they came up alongside, that the sea had broken in the top of the cabin, and flooded the interior, forcing the sailors to come up on deck. These men were at once taken into the surf-boat and brought to the station, where they were succored for several days. The life-saving crew worked with them until the 21st of November in unloading and pumping out the vessel, when an accident to an assisting tug arrested operations. The schooner was subsequently hauled out on the beach by a wrecking company and sold.

November 20.—The mid-watch patrol from Station No. 36, Third District (Rockaway Beach, Long Island, New York), discovered a vessel aground on the bar about a mile west of the station. He at once made signal to the vessel, and hurried to the station and reported. The life-saving crew quickly turned out with their surf-boat, but just as they arrived abreast of the vessel she floated off and proceeded on her voyage, apparently without damage.

November 20.—At about 7 o'clock in the morning, the schooner William Gilbert, of Big Sandy, bound from Trenton, Ontario, to Woodville, New York, with a cargo of lumber and a crew of four men, hove to at the mouth of Big Sandy Creek, and the keeper of Station No. 1, Ninth District, Lake Ontario, going out to her in a dingey with two men, found her in want of a pilot. In taking her in she grounded on the bar, the water being very low, and a hawser was procured from the station (none of the schooner's lines being long enough) and attached to the north bank, when by keeping a strain on the windlass, and carrying all her canvas to aid, she was worked off after two hours' effort, and got safely into the river.

November 20.—At about half-past 4 o'clock in the afternoon (Sunday)

the lookout at Station No. 10, Ninth District (Louisville), saw, simultaneously with a number of people on the river-bank, a man struggling frantically with the oars in an open row-boat in the swift water a short distance from the Falls of the Ohio, and evidently unable to manage the craft, both through inexperience and alarm. The station boat was instantly manned, and shot out to the rescue amidst great excitement, several hundred people having suddenly swarmed into sight on the banks, and the drifting row-boat was within twenty feet of the dam, with the turbulent water already breaking over her, when the rescuers seized her and towed her ashore. A second man was found lying in the bottom of the boat in a state of stupor.

November 20.—At about a quarter of 11 o'clock at night, during a gale, a sailor called at Station No. 8, Eleventh District (Muskegon, Lake Michigan), and reported that his vessel, the schooner *Lincoln Dall*, of Chicago, bound from Michigan City to Muskegon, with a crew of seven persons, was ashore behind the pier about two-thirds of a mile from the station. He said they had lost control of the schooner at the entrance of the harbor, owing to the gale and high surf; had missed the passage, struck against the crib, and stranded on the beach. As she grazed the pier he had jumped ashore and endeavored to fasten a line, failing in which the captain had sent him to the station to report. Very soon the patrol came in and reported the vessel also. He stated that he had hailed two tugs which were lying across the river to go to her assistance, but that they had refused on account of the heavy sea. The surf-boat was at once launched and pulled to the entrance of the harbor on the side of the pier opposite the vessel. Here the life-saving crew hauled the boat up and across the pier to the beach on which the stranded vessel was. They found the beach covered with flood-wood and wreckage, and in pulling out through it a log struck the surf-boat and stove a small hole amidships. Nevertheless they got alongside to leeward of the vessel and took off the stewardess, whom they sent at once to the station, as the weather was freezing. They then launched again and took off the captain, mate, four sailors, and their baggage and landed them safely. At 1.30 A. M. they arrived at the station. The entire crew remained at the station one night, and five of the men until the second day.

November 20.—The small schooner *Cynthia Gordon*, of Sheboygan, Wisconsin, bound to that port from North Bay, Wisconsin, with a cargo of cord-wood and a crew of two men, attempted to make a harbor at Two Rivers, Wisconsin, while a strong southwest gale was prevailing, but missed the channel and stranded, at 10 o'clock in the morning, near Station No. 17, Eleventh District. The crew of the station witnessed the disaster, and immediately launching a skiff, went out to her. Their offer of assistance was gladly accepted, and they at once set to work, hove the vessel off, and took her in safety to a dock. The following day, November 21, at 3 P. M., the schooner left port to resume her course for Sheboygan, and when about half way out of harbor she ran upon a bar. The life-saving crew again launched the skiff and went to her assistance. She was got off with but little difficulty and again put under sail for Sheboygan. Her captain was profuse upon both occasions in expressions of gratitude to the life-saving crew for the effective and timely aid they had rendered him.

November 21.—A steamer running dangerously close to the Long Island shore was warned off by the patrol from Station No. 23, Third District (Lone Hill, Long Island, New York), in time to save her from grounding in the breakers.

November 21.—At about 1 o'clock in the afternoon, during the prevalence of a heavy norther, the schooner-rigged pilot-boat Josephine, of Indianola, Texas, dragged from her anchorage inside Pass Cavallo Bar and drifted into the breakers on the point of Matagorda Island, about half a mile northeast of Station No. 4, Eighth District, the accident being due, no doubt, to the carelessness of her crew, there being but one man on board of her at the time. Her perilous situation was soon discovered by the life-saving crew, who went at once to her relief. Sail was hoisted and the anchors slipped, and an effort made to work her off into deep water again. It was found, however, that in striking the bottom she had unhung the rudder and had also sprung a leak. The vessel being thus disabled, there was no alternative but to let her drive well up on the beach, in order to save her from drifting out into the Gulf, where she must soon have sunk. This was accordingly done. At daylight the next morning the life-saving crew commenced preparations for getting her off. The extremely low tides, however, rendered the task quite difficult, and it was not until after several ineffectual attempts had been made that they finally succeeded, on the 16th of January, in floating her off and removing her to Indianola for repairs. But for the untiring energy of the life-saving crew this vessel would have become a total wreck.

November 21.—At 5 o'clock in the morning the three-masted schooner Boaz, of Milwaukee, bound from that place to Pierport, Michigan, having eight persons on board and a cargo of feed and supplies, attempted to run into Manistee, Michigan, in such a heavy sea that no tug would venture out to tow her. She ran against a sunken crib at the north pier, her jib-boom jutting over the pier so that by its means the men on board got off. The vessel then drifted onto the beach half a mile from Station No. 5, Eleventh District (Manistee), the crew of which boarded her, stopped her leak, got a steam-pump on board and pumped her out, and after two full days' work in discharging her cargo and getting the water out of her, set her afloat, when a tug dragged her into the harbor. She would have been lost but for the labors of the life saving crew.

November 21.—At midnight the schooner John Beam, jr., of and from Chicago with a crew of seven persons and one passenger, bound to Grand Haven, Michigan, attempted to enter her harbor while a high wind and heavy sea were prevailing. She fell to leeward and struck the north pier, when she dropped anchor, lying in about six feet of water. As the surf was strong and the vessel labored heavily, the crew of Station No. 9, Eleventh District (Grand Haven), went to her, and by means of the heaving-stick got her lines and made them fast to the pier, holding her there until daylight. They also used a 4½-inch hawser belonging to the Life-saving Service, fastening with it the schooner to the pier. When morning arrived, the keeper, by request of the captain, obtained a tug, which, at 9.15 A. M., towed the vessel into the harbor. The captain made the following acknowledgment of the services of the life-saving crew:

“GRAND HAVEN, *November 21, 1881.*

“This is to certify that Capt. John De Young, keeper of Life-saving Station No. 9, and his crew, saved my schooner, the John Beam, jr., and crew, through their help and a hawser which he loaned to me. Schooner worth \$5,000. Cause of disaster, a big sea, which threw schooner to leeward of pier to anchor.

“CAPT. WM. DISHER.”

November 22.—The steam-barge *Daisy Day*, of Manitowoc, Wisconsin, bound, with a crew of nine men, from Two Rivers to Ahnapee, Wisconsin, missed the channel at Two Rivers, about 9 o'clock in the morning, while coming in to load, but was directed to the channel by one of the surfmen of Station No. 17, Eleventh District, and came in all right. Three hours later, or at noon, she again missed the channel in going out, and got hard aground about a thousand feet from the station. She could neither back nor go ahead, and the wind being strong and the surf heavy, she began to pound pretty hard on the bar where she had stranded. The life-saving crew at once launched a skiff and went to her assistance, running a line from her to the south harbor pier, heaving her into the channel, and then piloting her out into the lake. It took an hour's hard work, from noon until 1 o'clock, to effect her release. Her captain gave cordial thanks to the life-saving crew for their help, which was particularly valuable through the absence of any tug at that harbor.

November 23.—The north patrol from Station No. 11, Second District (Nausett Beach, Cape Cod, Massachusetts), discovered and warned off with his Coston signal a vessel which was running into the breakers about two and three-quarters miles north of the station, her course being altered just in time for her to avoid going ashore.

November 23.—Shortly before midnight one of the patrolmen from Station No. 4, Third District (New Shoreham, Block Island, Rhode Island), reported that two sloops, the *Pacific* and the *Bob*, had dragged their anchors, and were drifting afoul of other vessels in the harbor. The life-saving crew at once turned out and hauled the two vessels to snug berths, and moored them safely for the night.

November 23.—The British brig *Arctic*, of Annapolis, Nova Scotia, bound from Trieste, Austria, to New York, with a crew of nine men and a cargo of mustard-seed, orange-peel, and cuttle-fish, was unable for two days, owing to thick and stormy weather, to get an observation, and on the above date, during a strong easterly storm, the sea being high and the surf raging, got into shoal water off Squan Beach, New Jersey. Her captain finding that they were in a perilous position, endeavored to tack, but the vessel refused to come in stays, and at half-past 7 in the evening stranded about four hundred yards from Station No. 11, Fourth District (Swan Point). The life-saving crew had been watching the vessel as she came on, and when she struck were abreast of her, with the Lyle gun and apparatus. It was black darkness, the wind had extinguished the beach lanterns, and all that was visible of the vessel was her starboard light; but at the first fire the life-saving crew threw the shot-line fairly over her, and in a short time eight of her men were safely landed by the breeches-buoy. The ninth man, demoralized by fright, had jumped overboard as the vessel struck, but was fortunately cast ashore, where he was at once caught by the surfmen. He was uninjured, but very cold, and was at once wrapped in the tarpaulin cart-cover, and as soon as possible conveyed to the station and cared for.

When the vessel struck, a kerosene lamp in the galley capsized and set fire to the forward house. The crew had extinguished it, and the captain, before getting into the boat, had put out the side-lights as a precaution against further fire. At midnight, however, the patrol discovered the vessel to be on fire. The flames spread with such rapidity that even if the surf had not been so high that no boat could live in it it would have been useless to endeavor to go to her. The vessel burned to the water's edge, and became, with her cargo, a total loss. It is supposed that the hull in thumping on the bottom overthrew the galley

stove, and caused the conflagration. The sailors remained one day and two nights at the station. Upon leaving, the two officers gave the following testimonial to the life-saving crew :

“ LIFE-SAVING STATION No. 11, FOURTH DISTRICT,
“ November 25, 1881.

“ The action of the crew of Life-saving Station No. 11, Fourth District, was most praiseworthy in the assistance rendered to the crew of the British brigantine Arctic, stranded near the above station on the night of November 23, 1881. Our danger was immediately discovered after the vessel struck, and the quickness and dispatch with which the gear was handled could not be excelled. The entire crew, with exception of one man who jumped overboard through fright, but was afterwards saved, were safely landed in an incredible short time by means of the breeches-buoy, and for myself and crew I desire here to express thanks for the untiring efforts of the life-saving men in rescuing us and for the kindness since shown us.

“ P. AUG. OXELGREN,
“ *Late Master of the Brigantine Arctic.*
“ H. M. THIESEN, *Mate.*”

The keeper and crew were assisted upon this occasion by three brave volunteers, Jacob B. Herbert, William Grant, and Abner Herbert.

November 23.—The schooner James W. Brown, of Belfast, Maine, bound from Baltimore to Jacksonville, Florida, with a crew of seven persons and a general cargo, became lost in a fog and stranded at the mouth of Lynn Haven Inlet, seven miles north of Station No. 1, Sixth District (Cape Henry), Virginia. The disaster occurred at a quarter past 9 in the evening, and its scene was so far beyond the limit of the patrol's duty that word of it did not reach the station until the next day, when the vessel's captain went ashore at Lynn Haven and reported the disaster at the signal office. At 11.30 A.M. the same day the keeper received the message, and without delay manned the surf-boat and started for the wreck. The wind had increased to a gale, and was so heavy that the men could not pull against it, and were obliged to land, and have the boat pulled by team to a point abreast of the wreck. At 4 in the afternoon, they launched again and boarded her. They found four men on board, whom they took ashore. Two of the sailors had gone ashore with the captain of the schooner, and on account of the high sea had been unable to return to the vessel for their comrades. The keeper of Station No. 2 (Seatack, Virginia) and one of his surfmen were on the beach when the crew of No. 1 arrived, and rendered what assistance they could. The following day, November 25, the life-saving crew made two trips to the schooner to obtain provisions for the use of her crew; but, owing to her being full of water, were able to secure only a small quantity. Having rendered this service, they returned the surf-boat to the station. The vessel became a total wreck; a part of the cargo, however, was saved.

November 23.—At quarter-past 11 in the night the schooner F. X., of Port Huron, Michigan, with a crew of five persons, bound from Sandusky, Ohio, to Port Huron, was discovered by the patrolman of Station No. 9, Ninth District, Marblehead Point, Lake Erie, dragging her anchors and fast going ashore. The night was very stormy—cold, with snow, and a gale blowing. The patrol gave the alarm at once and the keeper got his crew ready for action. The vessel soon struck, about sixty yards from shore, and her captain called for a boat to take the

woman cook ashore. With considerable difficulty, owing to the rock-bound beach and heavy sea, the surf-boat was got to the vessel and the woman taken on board and landed. When the life-saving crew returned to the beach from the station, whither they conveyed her, the weather was so bitter cold that, as there was no fire on the schooner, and some danger of her going to pieces, it was concluded to attempt getting the crew ashore. The previous experience with the surf-boat and the iron-bound character of the coast dictated the use of the Lyle gun and apparatus. At the first shot the line was carried aboard, and in a short time the crew were all safely landed by the breeches-buoy. The vessel was subsequently pulled off by a tug. The entire crew were sheltered and succored at the station three days.

November 23.—The scow *Lady Ellen*, of Ahnapee, Wisconsin, left Two Rivers at 1 o'clock P. M., for her home port, but could not make headway, the wind being so strong and the sea so rough, and returned at 5 o'clock in the afternoon for shelter. The weather was bitterly cold and the half-frozen sailors received material help in getting in, from the men of Station No. 17, Eleventh District, who ran out on the piers with lines and worked for an hour to get the vessel to safe and snug moorings, thereby winning the hearty thanks of the captain.

November 24.—At 7 o'clock in the evening a man arrived at Station No. 19, Third District, (coast of Long Island, New York), in an almost exhausted condition, reporting that while out gunning in the bay his skiff had capsized, and that it was only by the greatest exertion that he had succeeded in swimming ashore and reaching the station. He was at once furnished with dry clothing and restoratives by the life-saving crew and put to bed, and by the next morning with good nursing had completely recovered from the effects of his exposure. The life-saving crew also recovered the man's boat and gunning traps, and when he was able to leave they saw him safely on his way home.

November 24.—The sloop *Gray Eagle*, a small vessel of six tons, belonging at New York, and bound from Canarsie on a fishing cruise, lost her rudder and stranded a little after 8 o'clock in the evening two miles from Station No. 35, Third District, Long Island, going so high up on the beach that the five persons on board got ashore without assistance. The life-saving crew found the deserted wreck shortly after the occurrence, and rendered service by aiding her captain in stripping her of sails, rigging, cables, &c., the vessel being lost.

November 24.—At 7 o'clock in the evening, during the prevalence of thick, misty weather, the crew of Station No. 4, Sixth District (Little Island, Virginia), sighted a steamer heading in from the southeast, evidently bound into Chesapeake Bay, but steering directly for the land, both side lights being plainly visible. She was rapidly nearing the beach, and would soon have struck, but for the warning signals which were instantly shown from the station. The first signal was not noticed by the people on board the steamer, but when the second or third one was shown she made answer thereto, and quickly sheered off to the northeast. The vessel had a very narrow escape, as she was so close in that there was barely room for her to turn, the keeper of the station reporting that in another moment she would have been hard and fast aground.

November 25.—At 8 o'clock in the evening one of the patrolmen on duty from Station No. 15, Sixth District (Tommy's Hummock, North Carolina), burned a warning signal to a steamer which was running the beach too close, and she at once changed her course and kept further off-shore.

November 25.—During the night the barge *Transfer*, of Grand Haven, to which place she was bound from Chicago, with a crew of six men, encountered a heavy gale and snow-storm when approaching her harbor. There was a great sea and a strong current, and the vessel, unable to make the port, ran up, high and dry, on the beach. At about 6 o'clock in the stormy morning she was discovered by one of the crew of Station No. 9, Eleventh District, and within five minutes the life-saving crew were on the spot. The bargemen refused to leave her, as the vessel was beached and they were not then in danger. On November 27 the life-saving crew assisted in running a hawser from the barge to the pier and an anchor out into the lake, and then by means of tackles she was hove off the beach. The work was accomplished by slow degrees, the men being engaged in the work night and day until December 6, at 4 P. M., when she was got off in good condition.

November 26.—At 1 o'clock in the afternoon the schooner *Virginia*, of Lubec, Maine, bound from Portsmouth, New Hampshire, to her hailing port, in ballast, with a crew of five men; lost her mainmast off Quoddy Head light, about two miles from shore, and three miles east of Station No. 1, First District, Maine, and was obliged to anchor in an exposed position. She was discovered by a surfman of the above-named station, and the life-saving crew went out to her assistance, reaching her at half-past 2. The wind was blowing a gale, and a heavy sea was running, and the schooner's crew were unable to get away from their dangerous position. The life-saving crew assisted to heave up the anchors and in making sail, and took her safely into Lubec, from whence they returned to the station at 7 P. M.

November 26.—Mr. E. L. Parker, of Boston, was out gunning in Plymouth Bay in a little dory, and had anchored, when a strong southwest wind came up, and attempting to haul in his anchor to go ashore, he found it fast and could not move it. He left it behind and attempted to row to land, but the wind had increased and the sea was making so fast that he found himself unable to manage the boat. His difficulty was increased by the loss of one of his oars, and he was rapidly being driven out to sea when he was discovered by a surfman of Station No. 5, Second District, Massachusetts, who at once gave the alarm. The keeper and four surfmen hastened out in a large dory to his rescue, he being at this time about one mile from shore. They caught up with him in about half an hour, finding him nearly unconscious from exhaustion. He had given himself up for lost, and was not even aware of the approach of his rescuers until they were close upon him. One surfman got into the boat with him, and it was taken in tow by the large dory, and after two hours' hard pulling they safely reached the shore. As the wind continued to blow the little dory could not long have withstood the heavy sea. Mr. Parker expressed himself in the warmest terms to the life-saving crew, to whom he felt he owed his life.

November 26.—The steam-barge *H. B. Tuttle*, of and from Cleveland, Ohio, for Milwaukee, Wisconsin, with a cargo of coal and a crew of sixteen persons, was stranded with her tow, the *George H. Ely*, also laden with coal and having a crew of seven persons, during a snow-storm, at about 10 o'clock at night, about ten miles northwest of Station No. 8, Tenth District, Lake Huron, and half a mile from shore. The condition of the vessels became known at the station at about 7 o'clock on the following morning, when the life-saving crew proceeded to them in their surf-boat, arriving at 10 o'clock. They boarded the barge *Tuttle*, and at once set to work with her crew to lighten her by discharging her cargo. Having thrown most of her cargo overboard, they hove her afloat on

the morning of the 27th at 8 o'clock. The crew then proceeded to the barge Ely, and discharged her cargo in the same manner, and she was finally floated by a tug-boat on the 30th at 1.30 P. M.

November 26.—The crew of Station No. 9, Eleventh District, Lake Michigan, went out in the afternoon to the steam-barge Buckeye, which, when about three miles from Grand Haven Harbor, had hoisted a flag of distress. At half-past 3 the surf-boat pulled up alongside, and the keeper learned that a plug had blown from the boiler and that the barge's signal was for a tug to tow her into harbor. It was impossible to get a tug, and the vessel was finally got safely into port at 5.30 P. M. under sail and a low head of steam, the life saving crew remaining by her until she was inside.

November 26.—At 3 o'clock in the morning the schooner L. J. Conway, of Milwaukee, bound to that port from Bailey's Harbor, Wisconsin, with a cargo of wood, a crew of four men, and one passenger, attempted to take refuge in Sheboygan Harbor while a gale with heavy sea was raging, and struck the harbor pier when she was about three hundred yards inside. Her anchor was hanging to the cat-head, and when she struck it stove a hole in her bow. The patrol of Station No. 16, Eleventh District, Wisconsin, was on the dock when the accident happened, and hastening to the station reported to the keeper. The keeper and his crew were on the spot almost immediately. They found her rapidly filling, and assisted her crew to make her fast. By 5 o'clock she was rail deep in the water. Her crew left her and went to a hotel, while two of the life-saving men remained on the dock to watch her. At 8 o'clock the captain procured a tug and had her towed near to the station to await the arrival of her owner from Milwaukee. When the owner arrived he employed a diver to repair the damage done by the anchor. The life-saving crew assisted by stopping leaks about the fore-castle scuttle and the chain-pipes. They were obliged, while performing this service to wear the Merriman life suits, as the decks were three feet under water. At a little past noon the surfmen put on board the pump belonging to the Service, and by 8 in the evening had the schooner free of water. The captain of the Conway subsequently published the following letter of thanks to the crew in the Milwaukee Republican:

“A CARD OF THANKS.

“*To the Editor of the Republican:*

“I desire through your paper to return thanks to the life-saving crew of the Sheboygan Station for their valuable aid rendered me in raising the schooner Conway, sunk at that place, last Friday morning. But for their pumps and assistance so promptly offered, I would have been obliged to wait a number of days for a steam-pump or resorted to other expensive means to raise the vessel. Capt. Ole Groh's advice, good nature, and first-class assistance are worth everything to vessels in distress. You will not have to call on them if you meet with misfortunes in their locality. They are always on hand.

“D. W. CHIPMAN,

“*One of the Owners of the Schooner Conway.*”

November 27.—During a prolonged southwest gale, accompanied by freezing cold weather, the keeper of the Buffalo Breakwater light got out of provisions, and was prevented from getting to shore by the heavy sea, which equally prevented the keepers of the main light at Buffalo from going out in their boat to his relief, a task, however, which

was only attempted by them in response to signals of distress made by him after he had endured three days of fasting. The attempt having failed, the light-house boat being swamped in the start, the light-keepers took the provisions to the crew of Station No. 5, Ninth District, and begged them to make the effort to get them to the unfortunate man. The appeal was at once responded to by the launch of the surf-boat, and the crew, after a hard row for three-quarters of a mile, succeeded in reaching the breakwater, and replenished the stores of the famishing light keeper, after which they effected their return to the station.

November 28.—The south patrol from Station No. 7, Fifth District, Virginia, saw a vessel, which he supposed was ashore on Williams' Shoal, about three miles south of the station. He burned his Coston signal and reported the case to the keeper at 7.45 P. M. The surf-boat was at once launched, and pulled in the direction indicated. The shoals were reached, but no vessel was found. The crew returned to the station, arriving at 10.15 P. M. On the following day it was learned that the sloop J. B. Robbins had grounded on the shoals but floated off on the rising tide, and went in to Chincoteague.

November 28.—At about 10.25 P. M. a vessel was seen by the patrol of Station No. 9, Fifth District, Virginia, running too close in-shore. He warned her by burning his red Coston signal, and she stood off and escaped stranding.

November 28.—At 6 P. M. the sloop Gertrude, of Galveston, with a crew of four men, bound to Corpus Christi with lumber, parted her cable while being towed over Aransas Bar and she drifted on the south end of Saint Joseph's Island, one mile northeast of Station No. 5, Eighth District, Texas. The crew of the station went out to her in the surf-boat, and assisted in throwing over her entire cargo, carried out her anchor, and got her off and out of danger. The lumber floated ashore and was saved. The vessel escaped without damage.

November 28.—The schooner Fiat, of Oswego, New York, bound to Woodville, Lake Ontario, with a crew of four persons and a cargo of coal and kerosene, was piloted into Big Sandy Creek at half-past 2 in the afternoon by the crew of Station No. 1, Ninth District, the captain not knowing the positions of the buoys, which had been newly shifted. The crew afterwards helped to break the river ice and get the vessel to a safe mooring.

November 29.—At 5 o'clock in the morning the schooner Napoleon, of Boston, with a cargo of hemlock bark and a crew of five men, bound from Monckton, New Brunswick, to her hailing port, stranded in thick weather near Libby's Island light-house, and seven miles southwest of Station No. 2, First District, Cross Island, Maine. The wreck was hidden from the station by the high land of the island off which the vessel struck, and the life-saving crew did not know of the disaster until it was reported by a passing vessel on the following day, November 30, at 1 P. M. The surf-boat was then launched and pulled out to the schooner, arriving at 3 P. M. They found her in such a condition that nothing could be done for her. Her crew had landed on Libby's Island, and were taken by the surf-boat to the station, where three of them remained one day, at the end of which time a team was procured to convey them to their homes.

November 29.—At 4 o'clock in the morning the British schooner Nesbit, of Windsor, Nova Scotia, bound thence to New York with a cargo of rock plaster, and a crew of nine men and one passenger, having made an error in her reckoning, stranded one mile west of Station No. 4, First District, Little Cranberry Island, Maine, and about two hundred

yards from shore. She was discovered by the patrol of the station at 6 o'clock A. M., and half an hour later the life-saving crew boarded her. She was found lodged between two large rocks which held her bows. The life-saving crew assisted in shifting her cargo aft, and also threw about ten tons of it overboard, by this means lightening her eighteen inches forward. They then carried out an anchor astern, hove her off at high water, took her into Cranberry Island Harbor, anchored her, and pumped her out before they returned to the station, which was not until after dark. The Nesbit received considerable injury, losing part of her keel, so that she leaked badly.

November 29.—At 2.25 P. M., while the crew of Station No. 4, First District, Maine, were engaged on the Nesbit, the schooner Laurel Bruce, of Shelbourne, Nova Scotia, being off the eastern passage, signaled for a pilot. Surfman No. 6 was put on board, and after piloting the schooner safely into Cranberry Isles Harbor and anchoring her, returned to the Nesbit at 3.45 P. M.

November 29.—At 5 o'clock in the morning the schooner Ann, of Boston, bound from that port to Franklin, Maine, with a crew of four men and general cargo of flour, corn, &c., which had been lying in Seal Harbor, dragged her anchors near the granite works on Spruce Head Island, and stranded hard against a steep bank of stone chips, one mile northeast of Station No. 5, First District, White Head Island, Maine. A strong gale was blowing and a heavy sea running. The schooner's condition was discovered by a patrolman of the above-named station at daylight, and at once reported. The life-saving crew hastened promptly to the imperiled vessel with the surf-boat, and on arriving near her landed the boat in a sheltered cove, and proceeded to the schooner on foot. Quite a crowd of people had collected, but no assistance had yet been rendered. The surfmen boarded her, took off the forecastle hatch and found her leaking so badly that the water was up among the cargo. They took out the cargo, the citizens on shore assisting, and stored it in the buildings of the granite company close by. At flood-tide the life-saving crew conveyed the mate of the schooner to three vessels in the harbor, from which lines were obtained sufficient for getting the vessel off, which were run from the schooner to the brig Woodbury, of Castine, which was anchored five hundred yards distant. The life-saving crew then went aboard the schooner and hove her off. They then kept her pumped out and took her to the wharf, returning to the station at 5 P. M. On November 30 the master of the Ann sent to the life-saving crew to get the vessel away from the wharf. They accordingly went on board and pumped her out, but found it not advisable to move her at that time. She was afterwards taken to Rockland for repairs. A large part of her cargo was destroyed by water.

November 29.—At half-past 9 in the morning the crew of Station No. 1, Ninth District (Big Sandy Creek, Lake Ontario, New York), went out to the assistance of the schooner William Gilbert, which had arrived off the bar, from Oswego, seeking winter quarters, the captain having signaled for aid on account of the channel buoys being out of place and the river full of ice. The keeper at once took charge and beat the vessel in over the bar, and with his crew assisted in mooring her where she would be safe from the ice for the winter.

December 2.—At 10 o'clock at night the ferry master at the Jeffersonville ferry wharf, foot of First street, Louisville, Kentucky, was brutally assaulted by two unknown men, and the till of the office robbed. The outrage was discovered a few minutes after its occurrence and the dock bell was rung for assistance. One of the crew of Station No. 10, Ninth

District, a third of a mile distant, upon hearing the alarm bell, hastened to the dock, followed almost immediately by the keeper. A carriage was procured and the wounded man, whose skull was crushed, was taken by the keeper to his home, while the boatman went for a physician. Having procured the doctor, he returned to the wharf and kept watch until relieved by the ferry company in the morning. The wounded man died of the injuries received.

December 3.—At 3 o'clock in the morning the patrolmen of Station No. 3, First District, Crumple Island, Maine, saw a steamer running directly towards the rocks. One of them burned a red Coston signal, and the other ran to the station to give the alarm. The crew turned out prepared to render assistance, but when they arrived on the beach they found the warning had been given just in time to enable the steamer to steer clear.

December 4.—The patrolman of Station No. 4, Fifth District, Maryland, at half past 2 o'clock in the morning, discovered a steamer very close in-shore and in danger of running on. He burned a red Coston signal, and thus warned of danger she changed her course and stood off.

December 7.—At 5 A. M., during a northwest gale and snow-storm, a steamer having two schooners in tow, having attempted and failed to enter the harbor at Cleveland, Ohio, made an effort to head off into the lake with the vessels, but in doing so the tow-line parted. Both of the schooners being close in, let go their anchors to prevent stranding, but without effect, and they dragged ashore. One of these vessels, the schooner H. P. Baldwin, of Cleveland, from Escanaba, Michigan, for Cleveland, with a cargo of iron ore and a crew of nine persons, grounded about three hundred feet off-shore, and about one mile east of the harbor piers and the same distance east of Station No. 8, Ninth District. The keeper and crew of the station had discovered the vessels some minutes before the accident, and anticipating disaster had started for the scene, with the beach and mortar apparatus. On arriving at the park abreast of the wreck they found their way obstructed, three trains of freight cars standing on the railroad tracks, over which they were obliged to clamber with the apparatus; but overcoming all obstacles they reached the shore near the wreck within an hour from the time of starting, planted the gun, and established communication. In thirty minutes thereafter they succeeded in landing, in the breeches buoy, the entire crew of nine persons, including one woman, who had nearly perished from exposure and had to be taken to hospital immediately. Scarcely had the last person been landed when the vessel began to break up. She became a total loss.

December 7.—The schooner Cossack, of Detroit, from Escanaba, Michigan, for Cleveland, with iron ore and a crew of seven persons, which stranded at the same time with the Baldwin, lay a quarter of a mile west of the latter vessel and about six hundred feet off-shore, now demanded the attention of the life-saving crew. With great labor, in which they were assisted by citizens, the crew succeeded in transporting their apparatus over a very difficult route to a point abreast of the wreck, and commenced operations. At the first fire, the shot-line, which had been in use at the Baldwin, parted, and the gun became disabled by its recoil. The keeper returned to the station on a locomotive, procured another shot-line and gun, and established communication with the Cossack. Within twenty-five minutes her people, seven in all, including one woman, were landed. The vessel and cargo were a total loss.

December 8.—The schooner Freeman, of Ellsworth, Maine, from South-

west Harbor, for Portland, with a cargo of herring, and a crew of two persons, anchored in shoal water in Seal Harbor, about three-quarters of a mile northwest of Station No. 5, First District, Maine. At low-water the vessel stranded on Allen's Rock, and heeled over on her side; wind fresh at west-northwest with snow-squalls. The keeper of the station boarded her with his crew at once, and as soon as the tide had risen sufficiently hove her off and took her to a safe anchorage.

December 9.—The patrol from Station No. 24, Fourth District, New Jersey, discovered a vessel at about 1.30 A. M. sailing dangerously close in-shore. He burned his red Coston signal, and thus warned she altered her course and stood off.

December 9.—At 7 P. M. the steamer James A. Gary, of New York, from Mobile to Corpus Christi, with a cargo of lumber and a crew of twelve persons, grounded on Aransas Bar, a mile and a half northeast of Station No. 5, Eighth District, Texas, and a quarter of a mile off-shore. At 7.40 the life-saving crew reached her in the surf-boat and assisted her crew to throw overboard about five thousand feet of lumber, which so lightened her that she crossed the bar. No damage was done to the vessel. The lumber thrown overboard washed ashore and was saved.

December 11.—Six men landed from a boat on Race Point, Cape Cod, and were soon after found, wet, chilled through, and much exhausted, by the patrolman from Station No. 6, Second District. He learned that they were the captain and crew of the British schooner J. A. Hatfield, of Parrsborough, Nova Scotia, from Cornwallis, Nova Scotia, for New York, with a cargo of potatoes, which had been sunk in collision with an unknown bark the night previous. The patrolman conducted them to the light-keeper's dwelling near by, where they rested and were given a warm meal, after which all but the captain, who was too lame to walk, accompanied the patrolman to the station, where they were provided with dry clothing and otherwise made comfortable for the night. On the following day the keeper conveyed the shipwrecked crew to Provincetown, procured railroad passes for them, and saw them off for Boston.

December 12.—In the evening the patrol from Station No. 32, Third District, Long Island, discovered a vessel sailing too close in to the beach for safety. He at once burned his red Coston signal, and the vessel hauled off-shore.

December 12.—Two schooners were discovered at 5 A. M. ashore on the point of Cape Henlopen, and about two miles north of Station No. 1, Fifth District, Delaware. The life-saving crew at once launched their boat and proceeded to the stranded vessels. The first one was boarded at about 6 o'clock, and proved to be the schooner Kate M. Hilton, of and from Boston, for Delaware Breakwater, in ballast, with a crew of eight persons. She lay about twenty-five yards off-shore, the wind at the time being light, and a heavy swell rolling in. The keeper offered assistance, but it was declined. The other vessel, the schooner Spring Bird, of Provincetown, Massachusetts, from Tangier Sound for Boston, with oysters and a crew of five persons, was then boarded. She lay within a few feet of the Hilton and across her stern, with the sea running over her decks, pounding heavily, and in danger of colliding with the Hilton. The keeper offered to remain with his crew on board the Spring Bird, to assist in case of accident. In the meantime the captain of a tug-boat boarded the vessel and arranged with her master to tow her off. The life-saving crew then returned to the Hilton and ran

her kedge to prevent her working onto the beach. The master of the Hilton also made arrangements with a tug to take his vessel off.

Both vessels were saved.

December 12.—At 4 P. M. the stern-wheel steamer Golden Crown, of Covington, Kentucky, from New Orleans to Cincinnati, with a crew of sixty-five persons and thirteen passengers, was caught by the wind while coming out of the Louisville and Portland Canal, and blown up against the wing-dam of the Ohio Falls. The keeper of Station No. 10, Ninth District, Louisville, Kentucky, observing her condition, had the boat launched and, taking two of his crew, went to her assistance. They carried a large hawser from the steamer to the levee and made it fast. The crew of the steamer took it to the steam capstan and hauled the vessel away from the dam. When this was accomplished the life-saving crew let go the hawser, the steamer hauled it home, and proceeded in safety, no damage having been sustained.

December 13.—Information was given to Station No. 3, First District, Maine, early in the afternoon, that a vessel was ashore on the west end of Seal Island, about four miles east-northeast of the station, which point could not be seen from the station. The surf-boat was launched, and the stranded vessel reached at about 2 o'clock. She proved to be the British schooner Vascello, of Maitland, Nova Scotia, from Parrsborough for Boston, with a cargo of coal and a crew of six persons. The vessel had dragged her anchors and stranded during the previous night; her people were all ashore, and the captain refused the assistance of the keeper and his crew. The life-saving crew revisited the wreck on the following day and renewed offers of aid, which were again declined.

The vessel and cargo proved a total loss.

December 13.—One of the patrol of Station No. 10, Fifth District (Cobb's Island, Virginia), seeing a vessel standing close in upon Carter's Bar, struck his red Coston light, which caused her to go about and leave the shore.

December 13.—At 10 P. M. the two surfmen on watch at Station No. 5, Ninth District, Buffalo, New York, heard some one shouting for help. They at once shoved off in a small boat and went in the direction of the cries. They found a man clinging to the side of the dock, succeeded in getting him out of the water into their boat, and took him to the station, where he was provided with dry clothing and made comfortable for the night.

December 13.—During a dense fog at Station No. 5, Tenth District, Lake Huron, a steamer's whistle, indicating distress, was heard between 12 and 1 o'clock P. M. The surf-boat was launched, and guided by the sound of the whistle found the vessel about a mile and a half off Harrisville, Michigan, which proved to be the steam-barge George L. Colwell, bound for Harrisville. Her master wanted to know the course to steer to reach the dock at that place. This the keeper gave him, and then the life-saving crew went to Harrisville and caused a bell to be tolled to guide the barge to the wharf.

December 14.—The schooner Sunbeam, of Tuckerton, New Jersey, with three men and a cargo of oysters, was coming down Barnegat Bay to be in readiness to sail in the morning for New York, whither she was bound. While attempting to weather a point her center-board struck, and she payed-off, and the wind, which was blowing a gale, forced her out on the shoal, where she stopped about half a mile west of Station No. 23, Fourth District, New Jersey. The patrolman of the station saw the stranding, and the surf-boat was immediately launched and pulled

out to her against the wind, reaching her just an hour after she went on. As the wind was blowing hard on shore it was difficult to get her off, but the life-saving crew ran her anchor and took the hawser to the windlass, and hove her off without damage. The vessel proceeded on her way.

December 14.—At 11 o'clock in the evening, it being dark and stormy, the patrolman on the north beat from Station No. 3, Fifth District, Delaware, descried a schooner coming towards the shore. He at once burned his red Coston signal, and thus warned the vessel tacked and stood off just in time to clear the outer breakers.

December 14.—Early in the afternoon a vessel was seen from Station No. 11, Fifth District, Virginia, standing toward the beach. A signal warning her of her danger was set at the station, to which she paid no attention, but stood right on with everything set, and stranded about three miles east of the station and a mile off-shore, the wind at the time being moderate from south, but a high sea running. The life-saving crew boarded her soon after she stopped on the shoals, and found her to be the Italian brig *Agostino C.*, of Castel-a-Mare, Italy, from Sicily, and bound for Baltimore, with a cargo of sulphur and a ship's company of ten persons. She was leaking badly. The captain of the brig refused to take the sail off his vessel, but letting go her anchors with a short scope of chain, and leaving everything standing and his colors flying, was landed with his men by the life saving crew and taken to the station, where they were sheltered for several days. During the night and next day the brig dragged her anchors and beat down the beach, finally bringing up on Isaac Shoal, three and a half miles south of the station. The life-saving crew boarded her again and found her full of water and her sails blown to ribbons. They succeeded in getting the effects of the captain and crew. The brig proved a total loss.

December 15.—At about 1.30 A. M., it being thick weather and dark, the patrol from Station No. 3, First District, Maine, discovered a vessel standing in dangerously near the shore. He warned her by burning his red Coston signal, and she stood off all clear.

December 15.—Between 8 P. M. and midnight the patrol from Station No. 32, Third District, Long Island, saw a vessel under way close in-shore. He warned her of her danger by burning his red Coston signal, and she stood off.

December 15.—The sloop *Ocean Star*, of Somer's Point, New Jersey, from New York for Ship Shoal, Virginia, in ballast, with three persons on board, one a woman, dragged her anchors during a strong northwest wind, and was driven ashore near Station No. 10, Fifth District, Virginia, at about 5 P. M. The life-saving crew boarded her at once, ran an anchor, and hove taut on it. On the following morning at high water the vessel floated and swung to her anchor.

December 16.—The patrolman from Station No. 17, Sixth District, North Carolina, at about 8.30 P. M., discovered a steamer standing close on New Inlet Shoals. He burned his red Coston signal, which was answered by a white signal from the steamer, and she stood off-shore.

December 19.—While the keeper and six men of his crew were absent in the surf boat from Station No. 4, Second District (Gurnet Point Massachusetts), for drill and to mail official letters, the surfman who remained in charge at the station saw a schooner standing inside of Brown's Island Shoals, and knowing that, unless warned, she would get ashore, he put off to her in a small boat and piloted her clear. She proved to be the schooner *Milton*, of Bangor, Maine, and had mistaken the channel entrance to Plymouth Harbor.

December 21.—At 7.10 P. M. the patrolman from Station No. 1, Fourth District, New Jersey, discovered the red light of a vessel east-north-east of the station, which seemed to be stationary, indicating a probability that she was ashore. The surf-boat was launched and the vessel boarded, when it was found that she required no assistance. The crew then returned to the station, having pulled four miles.

December 21.—At 3 P. M. the schooner *Carrie S. Hart*, of Providence, Rhode Island, from Boston for Philadelphia, in ballast, with a crew of eight persons, mistook the channel at Cape May Point, New Jersey, and stranded on the Rips one-half a mile west of Station No. 40, Fourth District, and a quarter of a mile off-shore. The life-saving crew boarded the vessel at once, and succeeded, in about an hour, in getting her afloat, and piloted her through the shoals into good water. The following letter was received from the master of the vessel:

“SOMERSET, MASSACHUSETTS, *January 3, 1882.*

“S. I. KIMBALL,

Superintendent United States Life-Saving Service,

Washington, D. C.:

“DEAR SIR: December 21 my schooner, *C. S. Hart*, in passing in by Cape May ran on the point of the cape, and the crew of the station was on board inside of thirty minutes from the time we stopped, and, with the help and advice of the captain, we floated her in about one hour. It gives me much pleasure to make this report to you as a small return for their prompt and efficient aid.

“I wish you God-speed in your noble work.

“Yours,

“J. F. DAVIS,

“Master Schooner Carrie S. Hart.”

December 21.—A steamer towed a coal flat, having three men with a hawser on board, to a mooring-buoy at the head of the Falls of the Ohio, near Station No. 10, Ninth District. The men on the flat made one end of the hawser fast to the buoy, the purpose being to drop down the stream to meet the steamer *Gray Eagle* bound up, and pass the other end of the hawser to her, to enable her to work up against the strong current to the buoy. The keeper of the station observing the situation of affairs concluded that the men on the flat would, without aid, have trouble, and went with a portion of his crew to assist them. All went well until the steamer *Gray Eagle* came along, when the end of the hawser was passed on board of her and taken to her steam capstan. Instead of going slow the steamer drove ahead at full speed, and before the flat could be cleared of the hawser it was turned broadside to the current, capsized, and broken in two. The keeper with his crew and the men on the flat barely succeeded in jumping on board the steamer and saving themselves.

December 22.—At 6.45 A. M. the patrol from Station No. 8, Fifth District, Virginia, reported a vessel ashore one mile and a half south of the station and about a quarter of a mile off-shore. The wind at the time was moderate, from the eastward, accompanied with rain. The surf-boat was launched at once and the vessel boarded by 7.30 o'clock. She proved to be the schooner *Carrie Hall Lister*, of Seaford, Delaware, from Rappahannock, Virginia, for New York, with a cargo of pine wood, a crew of five persons, and two passengers. She was found lying broadside on, but in no particular danger. The captain wanted to throw his deck-load off, but the keeper advised that before doing so an effort be made

to float the vessel. The life-saving crew accordingly ran the schooner's anchor, and, manning the windlass, succeeded in getting her afloat on the rising tide, and piloted her to a safe anchorage.

December 22.—At sunrise the schooner *Polaris*, of and from Galveston, Texas, for Sabine Pass, in ballast, with a crew of three persons, while working into the pass, was drifted by the tide onto a reef about a mile and a quarter east-southeast from Station No. 1, Eighth District, Texas, and about one-half a mile off-shore. She was discovered by the life-saving crew and boarded as soon as possible. They ran her anchor and hove taut with the intention of working her off, but the tide had fallen so much that she could not be moved. On the following day the life-saving crew again went to the vessel, but failed to move her. They went to her again on the 24th and spent the day in efforts to float the vessel, but again without success. On the morning of the 25th the life-saving crew towed a lighter alongside the schooner, took her ballast out, heeled her over, and hove her afloat and took her to an anchorage.

December 25.—At 4.30 P. M. the lookout at Station No. 10, Ninth District, Falls of the Ohio, discovered a small skiff in the strong current above the cross-dam of the falls. One man was in it pulling for his life. The alarm was instantly given, and the keeper with two of the crew pulled off to the rescue. On reaching the skiff they took the man into their boat, seated him in the stern, and bade him hold on to his craft while they pulled for the shore. The current was very strong; the crew had a hard pull, and on account of having the skiff in tow were obliged to take a circuitous route. They arrived safely at the station, and the man, after resting awhile, returned to his home.

December 26.—At noon the watch at Station No. 12, Second District, Cape Cod, Massachusetts, discovered a large schooner with a dismasted vessel in tow, about five miles northeast of the station. The surf-boat was at once launched and the vessel boarded at 1 P. M. The large schooner proved to be the *Nellie S. Jerrell*, of Bridgeton, New Jersey, having in tow the schooner *Louis and Rosie*, of Boothbay, Maine, from New York, for Boothbay, with coal and a crew of five persons. The vessels had been in collision during the night, off Highland Light, Cape Cod, about twenty miles north of the station. The master of the *Jerrell* informed the keeper that the crew of Station No. 10 had boarded him in the morning, and promised to telegraph for a tug. Having advised the captain of the *Jerrell* relative to an anchorage for his tow, and arranged a signal for assistance if needed, the life-saving crew returned to their station. Later in the day a steamer took the dismasted vessel in tow and proceeded to Boston.

December 26.—A schooner too near shore was warned off by a red Coston light burned by one of the patrolmen of Station No. 2, Third District (Point Judith, Rhode Island).

December 27.—The schooner *D. M. Anthony*, of Taunton, Massachusetts, from Baltimore, bound for Boston, with a cargo of coal and a crew of eight persons, stranded in a thick fog, one mile and a half north-northeast from Station No. 1, Fourth District, New Jersey, and three-quarters of a mile off-shore. The fog lifted a little, and she was discovered about 5 o'clock A. M., by the patrol, who burned his red Coston light and hurried to the station to report. The surf-boat was launched and pulled in the direction of the vessel, guided by her fog-horn, and the life-saving crew boarded her at 6 o'clock. The keeper advised running a kedge, which was done, to prevent the vessel forging ahead as the tide rose. Sail was made on the vessel, when, with a favorable shift of wind

and aided by the incoming tide and heaving on the anchor, the vessel was floated, and she proceeded on her way.

December 28.—At half-past 1 o'clock, a dog was discovered struggling in the river on the opposite side, directly across from Station No. 11, Eleventh District (Chicago, Illinois). The keeper, Telesford St. Peter, nobly sent two of the surfmen over in a skiff and rescued the poor animal.

December 30.—The patrolman on the western beat from Station No. 1, Fourth District, New Jersey, discovered, at half-past 2 in the night, the red light of a vessel in New York Bay, about a mile and a half off-shore, but could not tell through the darkness whether she was in distress. Judging from her position that she was, however, he burned his red Coston light and hurriedly returned to the station, reporting the fact to the keeper. The surf-boat was at once ordered out. The wind at the time was blowing hard from the northwest, accompanied by frequent rain-squalls, while there was a very heavy sea running. At the second attempt the boat was launched and headed in the direction of the vessel. She was approached to leeward, and, it being very dark, a Coston light was burned to make her out. She was found heeled off-shore, with the sea making a clean breach over her, only her cabin top being above water between seas. The surf-boat was carefully backed down to the vessel, and, watching his opportunity, the keeper jumped on board and worked his way aft, between seas, receiving some bruises in the passage. The vessel proved to be the schooner Commander, of Boston, from Baltimore for New York with a cargo of coal, and a crew of six persons. She had struck upon a hidden wreck and sunk. As soon as the keeper had consulted with the master, preparations were made to abandon the schooner. The crew were passed into the surf-boat, then the captain's valuables, and then, watching their chance, the captain and keeper sprang into the boat, and she was headed for the beach. All were safely landed and conveyed to the station, which they reached at about 4.20 A. M.

December 30.—One of the patrolmen of Station No. 30, Fourth District (Beazley's Point, New Jersey), seeing a vessel standing into danger, warned her off-shore with a red Coston light.

December 31.—At 3 o'clock in the morning, a vessel running into danger was warned off-shore by a red Coston light burned by one of the patrolmen of Station No. 33, Fourth District (Ludlam's Beach, New Jersey).

December 31.—At 4 A. M. the patrolman from Station No. 34, Fourth District, New Jersey, discovered a vessel ashore on the south bar at Townsend's Inlet, New Jersey, about three miles south of the station and a mile off-shore. He reported at the station at once, and the vessel was boarded by the life-saving crew within an hour and a half. She proved to be the schooner Joseph F. Baker, of Sag Harbor, from New York for Baltimore, in ballast, with a crew of eight persons. After endeavoring to work the vessel off with her sails, the keeper made preparations to run an anchor and heave her off. By this time a wrecking-vessel came alongside, and her captain arranged with the master of the Baker to take his vessel off. The life saving crew, which had meantime been joined by the keepers of Stations 33 and 35, finding they could be of no further service, left the vessel, taking ashore dispatches for the captain. The vessel was towed off by the steamer.

December 31.—The patrolman on the north beat from Station No. 16, Sixth District, North Carolina, discovered a schooner standing into

danger. He at once burned his Coston light, and, thus warned, the vessel hauled off-shore.

January 1.—The patrol from Station No. 9, Fifth District, Hog Island, Virginia, discovered a vessel at about 2 A. M. running close in-shore. He burned his Coston signal, and the vessel stood off just in time to clear the bar.

January 1.—The keeper of Station No. 11, Fifth District (Smith's Island, Virginia), saw a schooner in the evening running for the shore, and warned her off with a red Coston signal.

January 2.—The schooner *Sea Foam*, of Saint John, New Brunswick, bound to that place from Bath, Maine, without cargo, and having a crew of four men, dragged her anchors during a northeast gale and snow-storm, and grounded at 8 o'clock in the morning on Green Island Ledge, four miles east of Station No. 3, First District (Browney Island, Maine). As vessels in that vicinity are not visible at the station owing to the lay of the land, an arrangement had been made by the keepers with the keeper of Moose-a-bec light-house to display a flag from a flag-staff erected near the light-house reservation whenever a ship was in distress. The station-keeper descried the flag about 3 o'clock in the afternoon—the weather having somewhat cleared—and at once put off with his crew in the surf-boat, arriving at the wreck by half-past 4. The weather was bitter cold—10° below zero—and a tremendous sea was running. The life-saving crew lost no time in running out anchors and hawsers, as the vessel was pounding badly on the ledge, and at flood-tide hove her off, and by vigorous effort got her to a safe anchorage at midnight. The darkness was so thick and the wind and sea so heavy that the life-saving crew were unable to row back to the station that night, and could only return by noon the next day. But for the labors of the life-saving crew the vessel would have been ground upon the ledge and her men lost.

January 2.—A man named William Darling, of Sayville, Long Island, New York, while returning from a fish-factory, at which he was employed, on Fire Island, in a small, open, cat-rigged boat, on January 1, encountered, while crossing the Great South Bay, a violent snow-storm, and during its prevalence his boat became disabled by the breaking of the main-boom. Thus crippled, he got caught in the ice and was unable to extricate himself. After drifting about in the bay all night exposed to the storm, he was discovered at 5 o'clock in the morning (January 2), while it was yet dark, by the patrol from Station No. 22, Third District (on the outer beach, opposite Patchogue, Long Island), the boat being then about three-quarters of a mile from the beach and surrounded by large fields of ice. The life-saving crew went as quickly as possible to his relief, and by great effort cut their way out through the ice and rescued him. His hands and feet were frost-bitten and he had suffered greatly from the cold. Upon reaching the station he received every attention the crew could bestow until he had sufficiently recovered to return to the factory, the man stopping to further refresh himself at Station No. 23, and being conveyed thence to his destination by the team belonging to that station.

January 2.—About 10 o'clock in the morning the steamer *Commonwealth*, of Philadelphia, bound from that port for New York, with nine men on board and a miscellaneous cargo, broke her piston-rod a mile from shore, just east of the point of Sandy Hook, New Jersey, and one and a quarter miles north-northeast of Station No. 1, Fourth District. A heavy gale was blowing, and the sea was very rough at the time. The steamer hoisted a signal of distress, which was seen at once at the station, and

Keeper Patterson and his crew immediately put out in the surf-boat through the gale, and after a hard pull reached the vessel. Her master, Captain Vankirk, had dropped anchor, but the steamer was dragging badly under the stress of wind and sea, and it was feared that she would work on until she struck on the False Hook Shoal and went to pieces. Captain Vankirk was therefore anxious to procure the services of a tug, and the life saving crew undertook to carry ashore a telegram to New York for this aid. As soon as possible the telegram was written, and the life-saving crew sprang into their boat, conscious of the desperate task before them of regaining the shore. As they surged away from the lee of the steamer the captain shouted at them over the side that they would earn an increase of pay before they reached land, and that he hoped they would get it soon. The crew responded with a roaring cheer, and then lay down to their oars. The work was tremendous. Wind, sea, and tide were all against them for over a mile, and when from time to time the squalls struck them the utmost strain upon the oars only enabled them to hold their own. In addition, it was bitterly cold, and the spray flying on them froze as it fell, so that the men, the boat, the oars, were all masked in a glare of ice. The crew held to their toil with unconquerable energy, and a few minutes after noon gained the shore and sent the telegram. An hour and a half later, the powerful steam-tug Cyclops appeared and took the Commonwealth in tow. The steamer saluted the brave station as she passed, and her captain afterward sent the following tribute to the life-saving crew:

“ON BOARD STEAMER COMMONWEALTH,
 “40 South Street, New York,
 “January 5, 1882.

“Captain PATTERSON,

“Keeper No. 1 Life-saving Station:

“DEAR SIR: I wish to convey to yourself and crew my thanks for your promptness in coming to my assistance on the day that my vessel was disabled off your station by the breaking of her engine, January 2, 1882, during the terrible gale that was prevailing at that time. It required nerve to undertake it, but you undertook it and succeeded. I trust you will always so succeed in your duties.

“I send this small token of appreciation; it is heartily given. I only wish it was more.

“Yours, truly,

“T. S. VANKIRK,
 “Commander Steamer Commonwealth.”

January 2.—The schooner William C. Wickham, of Philadelphia, from New York for Richmond, Virginia, with a cargo of railroad-iron and a crew of seven men, grounded on Brigantine Shoals, five miles east-northeast of Station No. 27, Fourth District, New Jersey, and two miles off-shore. She was discovered by the patrol from the station early in the evening, and boarded by the life-saving crew at 9 o'clock at night. They found that the vessel had grounded at high-water, and the tide having fallen they were obliged to wait until the next flood before attempting to relieve her. The keeper and crew remained on board, and at 4 o'clock the next morning made sail on the vessel, worked her off the shoals, and by skillful maneuvering piloted her all clear and left her on her course.

January 2.—The schooner J. Ricardo Jova, of Philadelphia, from New York for Richmond, Virginia, with a cargo of railroad-iron and a crew

of seven persons, stranded, in thick weather and a high sea, on the shoals two miles south-southeast of Station No. 8, Fifth District, Virginia, and a mile off-shore. She was discovered at 6.30 o'clock in the morning by the patrol from the station. The life-saving crew at once proceeded to the vessel in the surf-boat, and when they neared her saw that she was lying broadside on, and the sea breaking over her. By skillful management the keeper approached the vessel and boarded her forward. Finding it was impossible to save her, he advised her captain to abandon her. Accordingly the people on the wreck were landed in the surf-boat and sheltered at the station four days. The vessel and cargo became a total loss.

January 3.—The watch at Station No. 13, Second District, Massachusetts, reported, at about 4 P. M., two schooners in collision, two and a half miles east-southeast of the station. The surf-boat was launched, and the crew proceeded to the vessels. The smaller vessel, having the appearance of being the most disabled, was boarded, and proved to be the British schooner *Dart*, of and from Saint John, New Brunswick, for New York, with a cargo of lumber and a crew of four persons. The vessel was badly damaged, having her bowsprit, jib-boom, and head-gear carried away. The life-saving crew at once set to work to clear away the wreck, and weighed her anchor, which had been let go in the collision. By this time the steamer *Hercules*, of Philadelphia, came alongside, and the master of the *Dart* arranged with her captain to tow his vessel to Vineyard Haven. The life-saving crew ran the hawser from the schooner to the steamer, and left them on their way. In the mean time the other schooner had sailed away.

January 3.—The patrol from Station No. 10, Fifth District, Cobb's Island, Virginia, discovered a vessel close in on Carter's Bar. He burned his red Coston signal, which the vessel answered with a lantern and immediately stood off-shore.

January 4.—It was the schooner *S. V. W. Simmons*, of and from Philadelphia for Boston, with a cargo of coal, and carrying a crew of six men, which was in collision with the schooner *Dart*, as before recorded (January 3). The *Simmons* had a hole knocked in her starboard bow, just forward of the fore-rigging, and she was compelled to run to leeward and anchor off Monomoy Point to repair the damage, coming to at 3 o'clock the next morning (4th). The place where she anchored was hidden from view at the nearest life-saving station (No. 14, Second District), a few miles distant, on Monomoy Island, so that only her top-masts could be seen over the beach hills, and as she failed to make signal of distress until late in the afternoon, and then only for a short time, the fact that she needed aid was not even suspected, the presence of some twenty or thirty eastward-bound coasters like herself anchored under the lee of the beach awaiting the subsidence of the strong northerly wind then prevailing creating the presumption that she also was anchored for the same reason. The keeper of the station in making the rounds of his precinct passed abreast of the vessel at 2 o'clock in the afternoon and observed nothing to indicate that she was damaged. When, however, the first patrol went out in the evening he learned from a man living on the point that at about half-past 3 the schooner had shown her ensign in the rigging about ten feet above the deck, and soon afterwards hauled it down. The patrolman hurried to the station and reported, and the life saving crew at once launched the surf-boat, and after a hard pull of two hours reached the vessel at 9 o'clock. The captain informed the keeper of the nature of the accident to his vessel, and said that all he needed was materials to patch the rent in the bow, to

enable him to put into Hyannis for repairs, and that he had made arrangements a few hours previous with a party of wreckers for the necessary assistance. As nothing could be done until morning, and the schooner was in no immediate danger, the life-saving crew returned ashore, promising to be back at daylight. Accordingly they went off again at an early hour (January 5), and assisted in patching the hole in the schooner's bow, and she was thus enabled to get under way soon afterwards and run into Hyannis Harbor for repairs before resuming her voyage.

January 4.—Two patrolmen from Station No. 3, Third District, Watch Hill, Rhode Island, discovered a vessel soon after midnight on Watch Hill Reef, about one mile south of the station and a mile off-shore. The wind at the time was blowing a gale from northwest, and the weather was very cold. The patrolmen burned a red Coston signal, and then hurried to the station to report. The surf-boat was launched at once, and the life-saving crew boarded the vessel by 2 A. M. They found the schooner Monmouth, of New York, from Newport for New York, light, on the reef, with two feet of water in her hold, abandoned. They concluded to remain on board until flood-tide. At 6 o'clock the vessel floated from the reef on the rising tide. The wind was still blowing an off-shore gale and the vessel was leaking badly, being a third full of water. The life-saving crew made sail on her, and succeeded in working her in under the land, and anchored her a third of a mile from the station. They then returned to the station, arriving at 7 o'clock, where they found the crew of the Monmouth, four in all, at breakfast with the station cook. The master of the schooner had remained with his boat where he landed, and sent his men to seek shelter. The keeper on learning this fact sent a surfman to seek the captain, who soon arrived nearly frozen and worn out with fatigue and hunger. He was assisted in getting off his oil clothes, given hot drinks and a warm breakfast. The life-saving crew boarded the vessel several times, and succeeded in saving the personal effects of the captain and crew. The schooner, however, became a total loss.

January 5.—The patrol from Station No. 30, Third District, Long Island, burned his red Coston signal to warn a vessel of her dangerous proximity to the bar. She heeded the signal, kept off, and went clear.

January 6.—One of the patrolmen of Station No. 6, First District (Biddeford Pool, Maine), saw a vessel after midnight dangerously near shore, and instantly fired his Coston signal, which caused her to tack and stand away.

January 7.—The patrol from Station No. 23, Third District, Long Island, discovered a vessel under sail in imminent danger of going ashore. He burned his red Coston signal, and, thus warned, she hauled off-shore not a moment too soon.

January 9.—The brig Shamrock of Charlottetown, Prince Edward's Island, bound from Boston to Calais, in ballast, and carrying a crew of eight men, ran ashore at 10 o'clock in the morning, during a thick fog, on the northwest part of Baker's Island, coast of Maine, about three-quarters of a mile south of the life-saving station on Little Cranberry Island (No. 4, First District). The life-saving crew boarded her in less than half an hour after she struck, finding her in a very exposed situation, surrounded by rocky ledges. As the men on board were in no immediate danger, the life-saving crew went at once to work and carried out the brig's anchors for the purpose of heaving her off, the keeper, a man of experience in such matters, assuming charge. It was found no easy matter to relieve the brig, as she bilged and partially filled with

water soon after the commencement of operations, thus rendering the prospect of saving her very doubtful indeed. The keeper and his men, however, labored with praiseworthy perseverance against almost insurmountable obstacles, and finally after many vicissitudes succeeded, with the aid of some wreckers and a steam-tug, in floating the vessel off, on January 22, thirteen days after she went ashore, and took her to Southwest Harbor, Mount Desert, several miles distant, where she was grounded on the flats, properly repaired, and thus enabled to proceed on her voyage.

January 10.—The patrol from Station 13, Second District, Massachusetts, at 2 o'clock at night, saw a vessel's running-lights obliquely approaching the shore. He burned his red Coston signal, and the vessel wore ship and stood off-shore.

January 10.—The patrol from Station No. 14, Second District, Massachusetts, discovered a vessel ashore on Stone Horse Shoal, about seven miles south of the station, at 2.30 o'clock in the afternoon. The life-saving crew launched their boat and proceeded to the vessel, reaching her at 4.45 P. M. She proved to be the schooner Charles N. Simmons, of Taunton, Massachusetts, from Bath, Maine, bound for Baltimore, with a cargo of ice and a crew of nine persons. The keeper found that he could do nothing to relieve the vessel, and at the request of her captain he took a dispatch to the telegraph office at Chatham, some fifteen miles distant, arriving back at the station at 3 o'clock the next morning, in a thick snow-storm. During the forenoon the vessel was seen from the station to be afloat, having got off without aid, and at 1.30 P. M., as the storm cleared, she was under way, bound to the westward.

The following letter was afterwards received by the General Superintendent:

“BALTIMORE, MARYLAND, *January 31, 1882.*

“MR. SUMNER I. KIMBALL,

“*General Superintendent*

“*United States Life-Saving Service,*

“*Washington, D. C. :*

“DEAR SIR: The writer desires to express his appreciation of the valuable service rendered him while his (new) three-masted schooner, Charles Noble Simmons (753 tons), was ashore on Stone Horse Shoal off Monomoy light, Massachusetts. We misstayed and grounded at about 3 P. M., January 10. We soon set our colors for aid. At 4.30 P. M. life-saving boat's crew No. 14, Capt. George W. Baker, came on board. They dragged their boat over the sand, and pulled over five miles in one and a half hours, and then kindly offered to break cargo, stay by us, or do anything in their power to aid us in extricating the vessel from her peril. They took a dispatch to Chatham and sent it to Boston for a wrecking-tug to come to our aid. Next morning at 4 the tide flowed high we hauled the vessel off the shoal with our crew and donkey engine, all without damage or aid from any one. I take this method, in behalf of officers and crew, to heartily thank, through you, Capt. George W. Baker and his noble crew for the promptness and kindness of manner in which they proffered their services to us in our hour of need.

“Yours, in gratitude,

“H. L. BABBITT,

“*Master Schooner Charles Noble Simmons*

“*of Taunton, Massachusetts.*”

January 11.—At 6 o'clock in the morning the schooner Charles S. Tappan, of Gloucester, Massachusetts, bound from the fishing-grounds to Portsmouth, New Hampshire, with a cargo of fresh fish and a company of fourteen men, stranded on Pulpit Rock, four miles northeast of Station No. 7, First District, and about one hundred yards off-shore, during a heavy snow-storm. At 1 P. M. the keeper of the station received word from the cable station of the disaster, the occurrence having taken place on a section of the beach not patrolled by his crew. The surf was so heavy that the boat could not be launched; therefore the keeper sent four men of his crew to the scene of disaster by land. They found but two of the schooner's crew on board, twelve of her men having landed and gone to neighboring farm-houses. The captain objected to anything being done for the vessel's relief until the arrival of the insurance agent, and the men returned to the station accompanied by the two men who were on board, at 4 P. M. The next morning, at half-past 6 o'clock, the keeper had the surf-boat launched and manned and went to the wreck, where they found the agent, and assisted in taking off her sails and rigging. She was subsequently got off with the assistance of steam-tugs.

January 11.—At 9 A. M., during a thick snow-storm, the schooner A. F. Ames, of Rockland, Maine, from Perth Amboy, bound for Boston, with a cargo of pig-iron and a crew of seven persons, stranded, during a thick snow-storm, five hundred yards east of Race Point and one mile and three-quarters west of Station No. 6, Second District, Massachusetts. The vessel was discovered by the patrol from the station about the time she grounded, and the life-saving crew boarded her at 9.45 o'clock. She was found leaking badly and pounding heavily. The pumps were manned to keep the water down, and as the vessel floated on the rising tide sail was made, and she was piloted into deep water, but it was then found that the leak was gaining rapidly. After consulting with the captain, it was determined to put the vessel on the beach, which was done. The personal effects of the captain and crew, together with the provisions on board, were saved. The vessel and cargo became a total loss. The crew were sheltered at the station until the 13th, when the keeper obtained free passes for them on the Old Colony Railroad and sent them to Boston.

January 11.—The barkentine J. H. M., of Milford, England, bound from New York to Vianna, Portugal, with a cargo of petroleum in cases, and having a crew of seven men, stranded, in thick weather, at half-past 4 in the morning, a quarter of a mile from shore, on the east end of Jones's Beach, a mile southeast of Station No. 28, Third District, Long Island. She was discovered soon after by a patrolman, and the crew of the station turned out with the surf-boat. The sand was very soft, with gaps and holes in many places, and the men had a hard pull to drag the boat on its carriage for the distance between the station and the wreck, abreast of which they arrived greatly fatigued. They were fortunately joined when near the scene of operations by Keeper Ketcham, of Station No. 29, with six of his men, who assisted them in getting the boat along, helped to unload it from the carriage and to launch, Keeper Ketcham himself taking the steering-oar, and three of his crew taking oars in the boat with three of the crew of No. 28. The sea was very rough, but the seven sailors, including the captain, were soon landed without accident and brought to the station, where they were cared for for two days. Three of their number were provided with suits of clothes furnished by the Women's National Relief Association. The crew of No. 27 arrived upon the beach just as the

sailors were landed. The vessel was a total loss. About 2,500 of her 7,000 cases of petroleum were saved by a wrecking company, in poor condition.

January 11.—At 2 o'clock in the night the patrolman of Station No. 9, Fifth District, Hog Island, Virginia, saw a vessel endeavoring to enter the inlet and in danger of going ashore. He kept abreast of her, swinging his lantern, and so guided her in safety through the passage.

January 16.—While the steamboat Mary Houston, lying at the wharf at Louisville, Kentucky, was taking on board a number of mules, two of them jumped overboard. Two of the crew of Station No. 10, Ninth District, who saw the accident, launched their boat, and succeeded in getting the animals safely ashore.

January 16.—About noon a colored man fell from the steamer James Guthrie into the Ohio River at Louisville, and was rescued from drowning by Boatman John Tully, of Station No. 10, Ninth District.

January 17.—The schooner J. Y. Baker, of and from Gloucester, with a crew of four men, was lying inside Plum Island, Massachusetts, where she had taken on board a cargo of sand for Boston, when a fresh north-east wind sprang up, accompanied by a heavy snow-storm, and the captain concluded to run up the river for shelter. When getting under way the schooner filled on the wrong tack, and, there being but little sea-room, she grounded on a sand reef about one mile west-northwest of Station No. 1, Second District, at 9 A. M., and the life-saving crew boarded her soon after. They ran a kedge, discharged ten tons of her cargo, and tried to heave her off, but did not succeed. On the 18th, notwithstanding all efforts to save her, she sunk. The life-saving crew saved her sails, running-gear, anchors, and chains. The crew were sheltered four days at the station, and were supplied with necessary articles of clothing, of which they were destitute.

• *January 17.*—About noon, during a thick snow-storm, the patrolman from Station No. 4, Second District, discovered a bark standing directly for the beach, about half a mile off-shore. Her people suddenly became aware of their danger, wore ship, and stood off, and thus narrowly escaped stranding on High Pine Ledge. The patrol at once reported the case to the keeper. When next seen the bark was again heading for the beach, and knowing that if she held her course she must inevitably go ashore, the keeper boarded her, with his crew, and piloted her to a safe anchorage. She proved to be the British bark Elizabeth Roy, of Arbroath, Scotland, from Progresso, Mexico, for Plymouth, Massachusetts, with a cargo of hemp and a crew of six persons. She was short-handed and out of provisions and oil. The life-saving crew provided the bark with these articles, and, keeping watch on her during the night, boarded her the following morning, got her under way, and remained on board until she anchored off Plymouth. The captain subsequently sent the keeper a note of thanks for the assistance he had received.

January 18.—The sloop-rigged smack Juliet of Noank, Connecticut, carrying a crew of five men, while leaving the harbor of New Shoreham, Block Island, at 6 o'clock in the morning, for a fishing cruise, stranded on the outer side of the breakwater, where she would have suffered serious damage but for the prompt assistance of the crew of Station No. 4, Third District (New Shoreham, Block Island). The vessel grounded about a quarter of a mile distant from the station, but her perilous situation was quickly discovered by the patrol in the dim light of the morning, and in fifteen minutes from the time she struck the life-saving crew were alongside in two boats, with an offer of assistance. The sloop was pounding badly on the rocks, and not a moment was lost in getting

to work. Both anchors were carried out by the station boats, and after an hour's hard work the men succeeded in hauling the vessel afloat, and sent her on her way apparently without damage.

January 18.—The patrolman having the first watch northward from Station No. 6, Fifth District (Pope's Island, Virginia), while traversing his beat at about 7 o'clock in the evening, met two men who had lost their way and were wandering about, not knowing which way to turn. They had started from Chincoteague, some miles distant, just before dark, bound north towards the Maryland shore, but becoming bewildered by the storm had lost all knowledge of their whereabouts. The patrolman conducted them to the station, where their wet clothing was dried, and they were otherwise comfortably provided for until the next morning (19th), when the weather having cleared up they proceeded on their way all right.

January 18.—At half-past 2 in the night the patrol from Station No. 11, Fifth District, Virginia, discovered a steamer standing in towards the beach, head on. He burned his red Coston signal, and, thus warned, she went clear.

January 19.—At 4.30 A. M. the patrolman of Station No. 9, Fifth District, Virginia, the weather being thick and the sea high, discovered a vessel standing directly in for the beach. He swung his lamp and then burned a red Coston light. The vessel immediately changed her course and stood off-shore. She would have struck on the bar in five minutes.

January 19.—The bark *Harvest Home*, of and from San Francisco, California, for Port Townsend, Washington Territory, with a cargo of general merchandise, and carrying a crew of twelve men, was wrecked soon after midnight on the coast of Washington Territory, about ten miles north of Station No. 3, Twelfth District (Cape Disappointment), the vessel being carried so well up on the beach by the high sea then running that she was left dry at low-water, her crew landing without difficulty. Owing to the curvature of the coast line north of the cape the wreck could not be seen from the life-saving station, and nothing was known of the accident by the crew until 1 o'clock in the afternoon, when Keeper Harris discovered her from the deck of the pilot-tug *C. J. Brenham*, then cruising outside the Columbia River Bar. He was landed as quickly as possible at the station, and in half an hour after the wreck was first sighted the life-saving crew were on their way to her with the surf-boat and beach apparatus, across Baker's Bay to Illwaco, some few miles north, where the keeper preceded them on horse-back and arranged for teams to haul the apparatus the rest of the distance. The roads were heavy and the journey an exceedingly rough one, but the best possible time was made, and when the party neared the wreck, at about 4 o'clock, the keeper, who had ridden on in advance of his men, found all the people ashore, and that there was no need of assistance, the captain of the bark having already made arrangements with people in the vicinity to save all the cargo possible. Under these circumstances there was nothing to do but return, the men reaching the station at 11 o'clock at night, thoroughly fatigued from their long journey of about twenty-four miles, more than two-thirds of the distance having been made on foot.

January 22.—At 10 o'clock in the morning the crew of Station No. 14, Second District (Monomoy, Cape Cod), launched a dory and took over to Chatham one of the keepers of the light-house, who had been suddenly taken ill.

January 23.—The British schooner *Bucco*, of Saint John, New Brunswick, from New York for Saint John, with a cargo of coal, a crew of

six persons, and two passengers, anchored, in a northwest gale, with the thermometer at zero, in Muscle Ridge Channel, about two miles northeast of Station No. 5, First District, Maine. There was a thick vapor on the water, and an unknown schooner, bound up the channel, ran into the Bucco, carrying away her jib-boom and head-stays, and damaging her fore-rigging. She was discovered after the collision by the patrolmen from the station and reported. The life-saving crew went to the vessel at once. They found her in the condition described, and her windlass so badly iced up that it could not be worked. The keeper set to work with his crew, cleared up the wreck, put the vessel in good order to get into harbor, and left her at 11 A. M.

January 23.—The same unknown vessel which ran into the Bucco, as above related, collided also with the schooner George Shattuck, of Waldoborough, Maine, bound from Boston to Belfast, Maine, with a general cargo, a crew of three men, and two passengers, which had also anchored in the channel on account of being unable to get into harbor during the heavy gale. Before going to the Bucco the life-saving crew went to the Shattuck. They found her main-boom broken, her rigging carried away, and masts and everything about her decks covered with ice. The crew were much exhausted, wet, and chilled, and one man was badly frost-bitten. The captain desired assistance, but asked to be allowed first to sleep a few hours, as the fatigues of the night had unfitted him for further exertion. The life-saving crew then went to the Bucco. At 11 A. M. they returned to the George Shattuck. Only the captain and one man came on deck, the others being unable on account of exhaustion. The life-saving crew cleared away the ice, got the main-boom up, and rigged the topping-lift so that the mainsail could be set double-reefed. When the vessel was in good order for sailing the life-saving crew left her still at anchor in the channel and returned to the station at 2 P. M. While on duty at these wrecks one of the surfmen had both his feet frost-bitten, disabling him for several days.

January 24.—The crew of Station No. 12, Second District, Orleans, Massachusetts, at 2 o'clock in the afternoon, saw a bark with main-top-gallant mast gone, which had been lying at anchor, badly iced up, six miles northeast of the station, set her signal flags, and tried to answer, but could get no response to the flags of the station, and finally telegraphed her condition to Boston, with the view of having a tug sent to her.

January 24.—At 1 o'clock in the night the patrol from Station No. 5, Fifth District, Green Run Inlet, Maryland, discovered a vessel ashore two miles and a half north-northeast of the station and two hundred yards off-shore. He reported to the keeper as soon as practicable, and the life-saving crew proceeded with their boat to the beach opposite the stranded vessel, launched, and boarded her by 3 A. M. She proved to be the schooner Abbie and Eva Hooper, of Camden, New Jersey, from Philadelphia for Wilmington, North Carolina, with a cargo of steel rails and a crew of eight persons. The schooner was found to be in no immediate danger, and the captain refused to abandon her. The life-saving crew left, but returned in the afternoon, and took off four of her crew with their effects. The captain and the remaining three of his crew landed towards evening in their own boat. All were sheltered at the station. The vessel was saved.

January 24.—While the life-saving crew of Station No. 5, Fifth District, Green Run Inlet, Maryland, were alongside the schooner Abbie and Eva Hooper, at 3.20 A. M., they discovered another vessel ashore about a mile south of them. They beached their boat and conveyed her

to a point on the beach opposite the schooner and started for her at 4 A. M. Upon approaching the vessel, which lay about two hundred yards off-shore, they found the sea breaking over her. She was boarded after a hard struggle, and the men with great difficulty prevented their boat from being stove. In the effort the keeper lost his footing and was thrown overboard, but was rescued by his crew. By skillful management the schooner's crew, six all told, were got into the surf-boat and safely landed. The vessel was the schooner Chancellor, of New Haven, from Cove River, Virginia, for Fair Haven, with a cargo of oysters. The vessel was lost.

January 25.—At 6 o'clock in the evening, the patrolman going south from Station No. 4, Fifth District, Maryland, met two men about two miles from the station who had been out oystering, and whose boat had got frozen in the ice-pack. The vessel was out of wood and provisions, and the men were making their way to the station. Exhausted by fatigue and hunger, and nearly frozen, they were about giving out when the patrolman met them. He assisted them on their way and succeeded in getting them to the station, where their frosted feet were bathed and attended to, and where after a comfortable supper they were provided with beds for the night. After breakfast the next morning they were sufficiently recovered to resume their journey home.

January 26.—At 10 o'clock in the morning the keeper of Station No. 1, Fourth District (Sandy Hook, New Jersey), discovered a small schooner, the West Wind, of Navesink, New Jersey, stuck fast in the ice off the west shore, three or four miles distant, and showing a signal of distress. An effort was made to reach her with the surf-boat, but the bay being full of drifting ice, the life-saving crew could not make headway. The keeper then sent some of his men to the ocean-beach to get a tug, if possible, to go to the help of the schooner, and himself went to Captain Starring, of the Ordnance Department, and requested him to allow the use of a tug under his command, which that officer kindly agreed to. The tug then started, and, after a hard struggle through the ice of an hour and a half, reached the schooner and towed her into open water. The keeper found the people on board in a bad way, suffering from the cold and being short of provisions.

January 26.—At 2 o'clock in the night the patrol from Station No. 4, Fifth District, Maryland, discovered a vessel directly making for the shore. He burned his red Coston signal, and thus warned she stood off and went clear.

January 27.—The patrolman from Station No. 13, Third District, saw a schooner standing directly on-shore, at about 5.30 A. M., it being dark and foggy. He burned his red Coston signal, and the vessel went about at once, and escaped stranding on the bar in a high surf and strong wind.

January 27.—The ship Margaretha, of Bremerhaven, Germany, bound from that port for New York, with a cargo of merchandise and a crew of twenty-two men, stranded, in a strong west gale and thick weather, at 7 o'clock in the morning, two hundred and seventy-five yards from shore and a mile and a quarter east of Station No. 20, Third District (Smith's Point, Long Island). The ship was seen from the station window by Keeper E. A. Smith, and the crew snatched their breakfast, which was just ready, and made a rush for the scene of disaster, with the mortar apparatus, the surf being so heavy that no boat could live in it. The wreck had been seen by the crews of Stations Nos. 19, 21, and 22, detachments from which arrived on the ground soon after the appearance of the crew of No. 20, Keeper Sidney Smith, of Station No. 19, and six of his men being present, and also Keeper Monsell, of Station No. 21, with six

of his men, and Keeper Thurber, of Station No. 22, with three of his men. Keeper Franklin C. Jessup, of Station No. 17, who happened to be at Station No. 20 when the ship came on, was also on hand. The operations at once began, but the first line fired to the vessel fell short. A second shot was successful, but the line parted in hauling it on board. A large braided line offered by the keeper of No. 19 was then fired, reached the vessel, and by its means the whip-line was drawn aboard, and the hawser set up for the breeches-buoy. The ship had meanwhile worked to within two hundred and fifty yards of the shore, and the work of hauling in the sailors at once began, all hands taking part in it. The ship never ceased to forge ahead during the operations, and the labor was awful. The sea being large and violent, and a heavy current running through it to the east, and the ship being in perpetual convulsive motion, necessitated the constant tautening up of the gear to keep it clear of the water, and also the detail of several men to keep the weather part of the whip-line from fouling with the lee part while the sailors were drawn ashore in the breeches-buoy, the strain and tug on the lines being such that several of the life-saving men had their hands severely blistered by the labors of hauling. To add to their toils the gale made the sand fly so that straps and all small articles were soon buried, and sight and breath were had with difficulty in this tempest-driven simoom. The work went on, however, with unflinching energy, and by sunset the twenty-two sailors were safely landed. Fourteen of them were taken to Station No. 19 for succor, and remained there, owing to bad weather, for four days. The remainder were succored at Station No. 20, nine of them remaining for three days and two—the captain and mate—for thirteen days. The ship was a total loss, and her crew would have perished but for the aid rendered them.

January 28.—At 3 P. M. a schooner under short sail passed Station No. 1, First District, West Quoddy Head, Maine, bound to the eastward. Owing to the heavy gale prevailing at the time, it was apparent that the vessel could not carry sail enough to make a harbor. The keeper signaled her to anchor under the bluffs below Quoddy Head, so that he could board her. Not seeing or not understanding the signal, the schooner kept on across the bay for Campobello Island, and anchored there close in-shore. Her anchors held for a short time and then she began to drag to sea. Her crew at once abandoned her and were seen by the life-saving crew to land. Watch was kept at the station on the vessel during the night, and upon the following morning the life-saving crew boarded her. She proved to be the schooner Lucy Neal, of Eastport, from Cutler, Maine, bound fishing, with a crew of three men, and was found half full of water. The life-saving crew pumped her free and made preparations to get under way, and while so engaged her crew came on board. They got the vessel under way and took her to a safe anchorage in Quoddy Bay, and turned her over to her captain.

January 28.—The British schooner Lizzie K., of and from Saint John, New Brunswick, for New York, with a cargo of lumber, and a crew of five persons, stranded on Rocky Hill Point, White Head Island, Maine, about half a mile from Station No. 5, First District, and was discovered when she struck, at 7.15 A. M., by two patrolmen from the station. The wind at the time was blowing strong from the southeast, with a thick snow-storm. The patrolmen saw the vessel's boat come through the breakers, and land with some of her crew in her. The surfmen advised the crew to return to their vessel, and one of them went in the boat to pilot her back, while the other hurried to the station to report. The

keeper at once launched his boat and boarded the schooner. The captain wanted lines with which to heave his vessel off, and the keeper took him on board a vessel at anchor near by, where he borrowed a hawser and line. These were run by the life-saving crew, and hove taut. At 6 o'clock the next morning the life-saving crew returned to the schooner, hove her afloat on the rising tide, and took her to a safe anchorage, furled her sails, pumped her out, and left her. At high-water in the evening the keeper again boarded the vessel, with his crew, got her under way, and ran her on the flats in the harbor, to enable her captain to repair damages when the tide should ebb. On the 31st the life-saving crew got the vessel off the flats, took her to an anchorage, and on February 1st got her under way, piloted her out of the harbor, and saw her safely on her way to the westward and left her.

January 29.—The three-masted schooner Elizabeth A. Baizley, of Camden, New Jersey, bound from Baltimore to Providence, with a cargo of coal, and carrying a crew of seven men, encountered heavy weather after leaving Chesapeake Bay, and while running back to Hampton Roads for a harbor stranded on what is known as Carter's Bar, off Sand Shoal Inlet, at the southerly extremity of Cobb's Island, Virginia. The accident was caused by the vessel hugging the shore too closely, the shoals in that locality extending in some places from two to three miles off-shore. The schooner grounded at 4 o'clock in the afternoon, the spot where she took the bottom being about two and a half miles from the shore. The lookout at Station No. 10, Fifth District (Cobb's Island), saw her fetch up, and at once reported the fact to the keeper. As the wind was blowing a gale, it was decided to wait until low water before going off. Accordingly signal was made to let the people know their position was understood, and at 10 o'clock that night the surf-boat was launched, and the life-saving crew went on board. The schooner was lying easy, and as nothing could be done at that time towards getting her off the life-saving crew assisted in furling the sails and making everything as snug as possible, and then landed all hands, the captain taking his chronometer and ship's papers with him, it being 2 o'clock in the morning (January 30) when the party reached the station. At 8 the same morning the people were taken off to the schooner again, she having worked along the shoal, before the sea, a mile and a half to the southward and westward, since they left her. The Cobb's Island Wrecking Company also boarded the vessel and made arrangements with the captain for getting her off, and as there was no present need of the services of the life-saving crew the latter returned to their station (11.30 A. M.). The gale continued with unabated fury, and the sea became so rough that on the following day (31st) the wrecking company found it necessary for the safety of the vessel to cut the lines laid out for heaving her off by, and allow her to drive closer in-shore, to prevent her from pounding so heavily and breaking up, the schooner's crew accompanying the wreckers ashore and taking shelter at the station. The life-saving crew went off subsequently through the surf and brought ashore the crew's effects, in case the vessel should break up during the night. The continuance of bad weather prevented anything being done the next day, but on the morning of February 2 the gale had subsided sufficiently to permit the station men to go on board early in the morning, in company with the wreckers and the schooner's crew, the vessel having worked to within a mile of the station during the night, and then lying upon the middle ground between Cobb's and Bone Islands. A well-organized effort was at once made to heave the vessel off, and when this had been accomplished, and she was once more safely afloat, the life-saving men went ashore for the

crew's effects, which were taken on board, and the schooner proceeded on her voyage, the damage sustained being estimated at thirteen hundred dollars, one-fourth of that amount being the value of the cargo thrown overboard to lighten her. When it is stated that the schooner had been ashore nearly four days, and that she had thumped along in the breakers over dangerous shoals for a distance of at least three miles during that time, the fact of her remarkable escape with so little damage is noteworthy. This statement of the saving of the schooner Elizabeth A. Baizley, in which the crew of the Cobb's Island Station took such a prominent part, would be incomplete without mention of the fact that on the morning of January 30 the crew of Station No. 11 (Smith's Island), at least eleven or twelve miles distant, gallantly pulled up to the vessel, dead to windward, in the very teeth of the gale, for the purpose of rendering assistance. They were too late, however, as the people had been taken off by the crew of No. 10 some hours previous. The act was greatly to their credit, as the journey was a long and arduous one, and the men were nearly exhausted upon their return to the station late in the afternoon, after pulling to and fro a distance of about twenty-four miles.

January 30.—The British schooner Arcilla, of Saint John, New Brunswick, from Providence for Saint John, in ballast, with a crew of five persons, anchored in an exposed location three-quarters of a mile south-southeast of Station No. 4, Second District, Gurnet Point, Massachusetts. The keeper, conceiving the vessel to be in an unsafe anchorage in case of a shift of wind, boarded her with his crew, and informed the captain of his danger, and advised him to proceed on his voyage, the weather being fine. The life-saving crew got the vessel under way, piloted her clear, and left her, with the thanks of the captain.

January 30.—The schooner Shekinah, of Millville, New Jersey, carrying a crew of four men, bound from Chincoteague, Virginia, to New York, with a cargo of cord-wood, put into Little Egg Harbor Inlet, New Jersey, for shelter during the prevalence of bad weather, and was again putting to sea, on the above date, to resume her voyage, when she stranded on the shoals at the south side of the north channel of the inlet, about a mile south of Station No. 23, Fourth District (coast of New Jersey), the accident being attributed to the displacement of the channel buoys by the ice setting out of the inlet. It was 9 o'clock in the morning when the schooner struck, and she was soon afterwards boarded by the station crew, who found her on a bad part of the shoal, and partly full of water. They at once manned the pumps and pumped her out, and then winded her head round in the right direction for going off, and when the flood-tide set in hove her afloat into the channel, and saw her safely on her way, the boat's crew getting back to their station at half-past 2 in the afternoon.

January 31.—Two men engaged in cod-fishing were caught in a thick snow-storm which came on at noon, got bewildered and came near being lost, but succeeded in landing on the beach a mile and a half west of Station No. 18, Third District (Moriches, Long Island), where they were discovered, greatly exhausted, at half past three o'clock in the afternoon, by one of the patrolmen, and assisted to the nearest fish-house. One of them accepted an invitation to shelter at the station for the night, the other preferring to remain at the fish-house.

January 31.—The schooner Dolly Varden, of Somers Point, New Jersey, carrying a crew of three men and loaded with oysters from New Inlet, Virginia, for Great Egg Harbor, New Jersey, encountered stormy easterly weather on her way up the coast, and ran ashore during a thick

hail-storm at a point about three and a half miles north of Station No. 7, Fifth District (Assateague Beach, Virginia), half an hour after noon. The schooner was of light draught, and as the sea was quite rough and the tide rising she came up high and dry, enabling the crew to land without the aid of a boat. The weather was then so thick that the vessel was not seen by the mounted patrol from the station until he was within a quarter of a mile of her, she having grounded about half an hour previous. The man quickened his horse to a gallop and reached the spot just as the people were wading ashore. After helping them save their personal effects the surfman remounted and hastened back to the station for the assistance of his comrades. The station men at once hitched up the cart and all hands proceeded as quickly as possible to the wreck. The luckless sailors were found abreast of their vessel shivering in their wet garments and almost exhausted from exposure to the chill sleet-laden winds from the ocean. They were despatched at once to the station in the cart for dry clothing and necessary attention, while the keeper and part of his crew remained on the ground to save everything they could from the wreck. The sails, rigging, anchors, chains and all other articles possible were thus saved, the hull and cargo proving a total loss. The sailors would have perished if they had not been discovered by the patrol, as they could not have found shelter in the blinding storm.

February 1.—An instance was afforded on this date of the disappointment which sometimes crowns the severest and most valiant labors of life-saving crews. Between 7 and 8 o'clock in the morning, while a violent gale was raging, accompanied by a thick snow-storm, the patrolman of Station No. 3, Second District, Scituate, Massachusetts, reported a vessel ashore on Marshfield beach, four and a half miles distant. Horses were procured to haul the boat and apparatus, the roads being terribly blocked with snow, and in a few minutes the start was made. The snow made progress slow and toilsome. It was impossible, on account of this impediment, to cross the sand-hills, and the party were obliged to follow the beach. When about a mile and a half from the station, in crossing some frozen shallows, the ice gave way under the weight of the horses and the load they were dragging, and everything had to be taken out of the boat, the boat lifted down from the carriage, the carriage ungeared, and the horses and carriage dragged out by hand. Then after reharnessing and reloading, the start was made again. The aim was to reach the North River, about two miles from the station, and before this was accomplished the men were compelled to unload five times, and take the boat off the carriage three times, as the horses broke through the frozen pools. Finally, after hours of this horrible toil, the North River was reached and the boat launched. The row was against a very strong tide for over a mile, until the South River, an intersecting stream, was gained, when the boat crossed over, a distance of about two hundred yards, and landed on Marshfield beach, a mile and a quarter from the wreck. The boat was hauled up on the river bank, and the horses having, of course, been left behind when the launch was made, the men were compelled to go forward without it, in the hope of finding a team beyond. It was noon when they arrived at the wreck. A crowd of men from the town were on the beach with a life-boat belonging to the Massachusetts Humane Society, but the high tide and the fury of the surf had prevented their launching. The vessel lay about one hundred and fifty yards from shore, with the sea breaking all over her hull, and her crew of six men up in the fore-rigging. It was a three-masted schooner, the Louise D. Rathbun, of Perth Amboy, New Jersey, bound

from South Amboy to Boston with a cargo of coal. She had driven ashore in the heavy gale a little before midnight, and her crew had been in their miserable plight for twelve hours, pent in the rigging, with the sea crashing over the hull beneath them, and the night, the snow, the bitter wind, and the prospect of death, as factors in their torture. There was a man upon the beach with a team which had brought the Humane Society's life-boat, and the keeper of the life-saving crew at once solicited him to go and bring up the surf-boat which had been left on the bank of South River. After some hesitation, involving a little delay, he started on this errand. Meanwhile the tide, which had been falling, began to abate the sea, and half an hour later, when the team bringing up the surf-boat was within seven hundred yards distance, the surf had so flattened that the men on the beach were enabled to launch the Humane Society's boat and effect the rescue. The life-saving crew, therefore, after all their labor, and when their boat was just coming up, had to submit to see the men on the wreck saved by others. The vessel was lost.

February 1.—The patrolman of Station No. 11, Fifth District (Smith's Island, Virginia), saw a schooner running into danger near the beach. He burned a Coston signal and she stood off.

February 2.—The keeper of Station No. 37, Third District (Coney Island, Long Island, New York), discovered a scow off in the direction of Rockaway Shoals, drifting to sea before the westerly wind then blowing. The life-saving crew went out at once in the surf-boat, and finding no one on board the scow they towed it into Rockaway Inlet and moored it in a safe place to await the arrival of the owner.

February 3.—The schooner Water Line, of Boston, from Elizabethport, New Jersey, for Lynn, Massachusetts, with a cargo of coal and a crew of six persons, stranded during a thick snow-storm on Doherty's Bar, about two and a half miles north of Station No. 3, Second District, Scituate, Massachusetts, and three hundred yards off shore. She was discovered by the patrol from the station at about 5.30 a. m., and boarded by the life-saving crew an hour later. They immediately ran the schooner's kedge, and hove taut, and as the tide came in, made sail on the vessel, worked her off, and took her to a safe anchorage; then returned in the surf-boat, recovered the kedge and hawser, put them on board, got the vessel under way, and left her bound on her course.

February 4.—The schooner Julia, of Tuckerton, New Jersey, carrying a crew of two men, bound from New York to Atlantic City, New Jersey, with a cargo of laths, dragged her anchor and went ashore in Barnegat Inlet during the prevalence of an easterly gale and snow-storm, at 3 o'clock in the afternoon, the point where she struck being three hundred yards from the shore and a mile west of Station No. 17, Fourth District, situated on the southerly side of the inlet. She was quickly seen from the station, and the life-saving crew went off to her assistance. The sea was breaking over her badly, and the two men were wet and cold and with nothing to eat. They were at once landed and taken to the station and made comfortable until the next day, when they left for their homes at Atlantic City, the schooner in the mean time having driven up nearly high and dry. A few days afterwards, when the men returned, the station crew carried the vessel's anchors out and boated the cargo ashore to lighten her, and then, waiting for the recurrence of a full tide, she was floated off on February 21, without damage and without expense to the captain, who owned her; the only loss being about five thousand laths, valued at twenty-five dollars, which were washed overboard the day she went ashore.

February 5.—At half-past 3 in the afternoon, during a heavy north-east gale and thick snow-storm, the patrol of Station No. 1, First District (Carrying Point Cove, West Quoddy Head, Maine), reported two vessels flying signals of distress about a mile north-northwest of the station. The life-saving crew at once went to the beach and signaled them to hold on as long as possible, as the barometer indicated that the worst of the storm was over. As the gale and snow abated, two other vessels were discovered farther up the bay, stranded and rolling heavily; and the keeper at once sent four of his men to help their crews ashore, he remaining with three of the crew and several local residents watching the vessels first seen, which would have fared badly if their chains had parted, the cold being bitter and the sea fearfully violent. Fortunately, their moorings held, and at half-past 4 they lowered their signals of distress, the gale having abated and the wind hauled so that the sea ran down. The keeper then, with the remainder of his crew, went to assist the stranded vessels. One of these was the schooner *White Foam*, of Gloucester, Massachusetts, bound, in ballast, from Cutler, Maine, to Grand Manan, New Brunswick, with three men on board. She had anchored to ride out the storm, but lost her anchors and drove on to Cromwell's Bar, five hundred yards from shore. The other vessel was the British schooner *M. L. St. Pierre*, of Saint John, New Brunswick, bound in ballast from New Haven, Connecticut, to Saint John, with a crew of five men. She also had anchored in the heavy storm, but had dragged her anchors, and to avoid going upon a ledge slipped her chains and stranded a couple of hundred yards from land. The life-saving crews found neither vessel badly injured, and the crews of both all safe. They got anchors and cable for the schooner *White Foam* and ran them out so that the vessel might come over the bar when the tide rose. They then went to the *M. L. St. Pierre* and took her crew ashore in the surf-boat. The crew of the *White Foam* were also taken ashore, as there was danger that their vessel, if she should beat over the bar during the night, might sink. Both crews were sheltered and succored at the station until the next day. In the morning the life-saving crew found the *White Foam* over the bar, and riding easily, partly full of water. They took her crew on board, beat off the ice, pumped her out, and at flood tide took her to Lubec for repairs. They also went out to the *M. L. St. Pierre* with her men, obtained and ran out an anchor and chain, and, on February 7, hove her off, took her to a place of safety, and delivered her to her master.

February 5.—A northeast gale which had been prevailing, with heavy snow, had changed to a strong wind from the west, and the weather had cleared when one of the crew of Station No. 23, Fourth District (Little Egg Harbor Inlet, New Jersey), saw through a good glass, from the light-house near the station, a signal of distress flying from an unoccupied house several miles away on the other side of New Inlet, a body of seawater which at this point cleaves the beach broadly into Great Bay. The surf rolling into the inlet was very heavy, but the keeper at once ordered out the surf-boat, and after a long and hard pull reached the house, and found there Mr. Randolph, an operator of the Signal Service, and Mr. Arthur Rider. They had left the light-house the previous morning in a small yacht for the purpose of inspecting the telegraph line on the south section, and were on their way back from the performance of this duty when the wind increased to a heavy gale, with a storm of thick snow, and their sail burst, making it impossible to proceed farther. They contrived to regain the land, and reached the deserted house, wet to the skin, where they remained without food until their rescuers reached them. Their boat had been carried, when the wind shifted, up onto a meadow,

and they could not launch it. The crew got it afloat for them, and the two men, the wind now being free, succeeded in scudding with it to the light-house.

February 5.—At 7 o'clock in the evening the patrolman of Station No. 11, Fifth District (Smith's Island, Virginia), saw the red light of a vessel near inshore. He burned a red Coston signal. The vessel took warning and stood off.

February 5.—The schooner Mary L. Vankirk, of Philadelphia, Pennsylvania, to which port she was bound from South Creek, Pamlico Sound, North Carolina, with a cargo of pine lumber and carrying a crew of five men, encountered heavy weather during the trip, and lost sails and sprung a leak, so that before long she became water-logged and almost unmanageable. In this condition it was determined to run to leeward and seek refuge in Hatteras Inlet. Before that point could be reached, however, matters became so much worse that it was decided to beach the vessel to save the lives of those on board, her crew being apprehensive of her capsizing at any moment. She was discovered heading for the land by the crew of Station No. 18, Sixth District (Chicamcomico, North Carolina), with her colors in the rigging, union down, at about seven in the morning (February 5). The surf-boat was at once run out on its carriage for service, but the life-saving crew finding there was little prospect of getting off to the vessel against the heavy surf then tumbling in upon the beach, returned to the station for the breeches-buoy apparatus, the latter arriving abreast of the schooner at a quarter past eight, fifteen minutes after she struck the bar about half a mile north of the station. The schooner came so close in that the keeper was able, by wading out into the water, waist deep, to cast a heaving-line to the people who were huddled together in the rigging. The sea at that time was breaking all over the ill-fated craft, and the situation was critical. As quickly as possible the men in the rigging hauled off the whip-line, and that being followed by the hawser, the breeches-buoy was soon rigged and went spinning out to the vessel. From that onward the work was comparatively easy, the five men being safely landed within fifteen minutes after the hawser was set up; all being profoundly thankful for their escape. It was extremely fortunate that the tide was high, the vessel coming in over the bar and much nearer the beach than would have been the case with a receding tide. The rescued men were conducted at once to the station and made comfortable, the life-saving crew going on board at low water and saving their effects. From the time the men arrived with the apparatus abreast of the vessel not a hitch occurred to mar the success of their operations, the entire affair being very skillfully managed. A portion of the schooner's cargo was subsequently saved, but the vessel became a total wreck. It is due to the crew of the adjacent station north (No. 17) to state that as soon as the wreck was discovered they proceeded down the beach to the assistance of their comrades of No. 18, with all the dispatch possible, although the soft and yielding condition of the beach rendered travel so difficult that participation in the work of rescue was impossible, the sailors being snugly housed at the station long before their arrival on the ground.

The captain of the vessel sent the following statement to the general superintendent, in acknowledgment of the services of the life-saving crew:

“FEBRUARY 5, 1882.

* * * “When a little north of Winter Quarter Shoals I lost my sails and the vessel sprung a leak and became unmanageable, and about

8 a. m. stranded about half a mile north of Station No. 18, when there was the promptest assistance rendered by the keeper and crew in landing me and my crew. They were abreast of the wreck in a few minutes after she struck, and in fifteen minutes after they arrived we were all safely landed on the beach and taken to the station and cared for.

"J. G. BALLANCE,
"Master Schooner *M. L. Vankirk*."

February 6.—Service was rendered to the captain and mate of the schooner *Julia*, which was driven ashore on the inside of Barnegat Inlet in the snow-storm of February 4, by the crew of Station No. 23, Fourth District (Little Egg Harbor Inlet, New Jersey), who ran out the boat and rowed them across New Inlet, several miles wide.

February 6.—The crew of Station No. 23, Sixth District (Hatteras, North Carolina), brought to the station the body of a man who had been drowned in Pamlico Sound, made a box for it and buried it. The body was identified as that of S. R. Johnson, of Norway.

February 8.—The British schooner *Lady Franklin*, of Pictou, Nova Scotia, bound from Halifax to Boston, with a cargo of potatoes and carrying a crew of six men, stranded at 4 o'clock in the morning about two and a half miles east of Station No. 7, Second District (Peaked Hill Bar, Cape Cod, Massachusetts), a moderate southwesterly wind prevailing at the time with rainy weather. The vessel was discovered at 5 o'clock by the station patrol, the people on board answering his signal by firing a gun. The patrolman made the best time possible in summoning his comrades, and in an hour after he had sighted the vessel the life-saving crew were on board of her and ready to render assistance. Although the tide was ebbing, the surf on the bar was so rough that the captain feared his vessel would fill with water before anything could be done for her relief. In that case she would probably become a total wreck. It was therefore decided to lighten her by throwing cargo overboard. Her own crew were about used up from loss of rest and sleep during continued bad weather for several days preceding the accident, and the life-saving crew therefore took charge and proceeded to break out the cargo, throwing about five hundred bushels of potatoes overboard. While this was being done the crew of Station No. 8 (Highlands) arrived after a hard pull and lent effective aid to their brethren of No. 7. With the recurrence of flood tide the surf increased so rapidly that at 9 o'clock it became necessary for the safety of the vessel to suspend the discharge of cargo and close and batten down the hatches. The wind in the meantime had shifted into the north-west and commenced blowing a gale. The sails were therefore close reefed and got in readiness for hoisting as soon as the vessel should lift with the tide, the jib being set at once to cant her head off shore. As the water deepened about the schooner she commenced lifting by degrees, and in a short time her bow swung off in the direction desired. At that moment the reefed sails were hoisted, and before long, under the favoring influence of the gale, the efforts of the life-saving crews were crowned with success and the schooner was once more afloat. As the gale was adverse for reaching Boston it was decided to put into Provincetown for a harbor, the keeper of No. 7 remaining on board to pilot the schooner into that port while the rest of the men returned to their respective stations. The vessel reached a safe anchorage a few hours later without material damage.

February 8.—Between sunset and 8 o'clock, a patrolman of Station No. 39, Fourth District (Cape May, New Jersey), saw a steamer running

dangerously near Cox's Shoal, and let blaze his Coston signal. The steamer immediately changed her course off shore.

February 9.—A patrolman of Station No. 37, Fourth District (Turtle Gut, New Jersey), saw a steamer standing very close to the beach, and burned two Coston signals in succession, which caused the steamer to change her course and bear away.

February 9.—The schooner *Stella*, of Galveston, Texas, carrying a crew of four men, bound from Pascagoula, Mississippi, to Corpus Christi, Texas, with a cargo of lumber, stranded on the bar at Aransas Pass, four or five hundred yards from shore, and a mile and a half distant from Station No. 5, Eighth District, coast of Texas. The accident occurred at 2 o'clock in the afternoon with an ebb tide. The life-saving crew saw her fetch up and at once went off in their boat, reaching the vessel at 3 o'clock. After running out an anchor to heave the schooner off by, they turned to and rafted the lumber alongside to lighten her. The men worked steadily until midnight without getting her afloat, and then, as the water was still very low, it was found necessary to suspend operations until the tide turned in the morning. At 4 o'clock a. m. (of the 10th) the windlass was again manned, and by 6 o'clock they had the vessel safely off. She was at once brought inside the bar, where the lumber was reloaded, and the vessel enabled to proceed up the bay to her destination. She received no damage by the casualty, but about five thousand feet of the lumber, valued at one hundred and fifty dollars, was swept away by the current and lost. Excellent service was rendered by the life-saving crew on this occasion.

February 10.—At twenty minutes past 2 in the afternoon a three-masted schooner came running down the beach, steering directly toward the bar, in the neighborhood of Station No. 9, Fifth District, Hog Island, Virginia. The keeper at once had the international signal "J. D."—"You are standing into danger"—hoisted at the flag-staff, and the schooner saw the warning just in time to clear the bar and escape stranding.

February 11.—At half-past 4 in the morning, before daylight, during a heavy northwest gale, with snow-squalls, and while a tremendous sea was running over the concourse of dangerous shoals in the neighborhood of Monomoy, a large three-masted schooner, the *Thomas D. Harrison*, of New York, bound from Georgetown, Maine, to Baltimore, laden with ice, and having a crew of eight men on board, misstayed, drove in and struck on the Stone Horse Shoal, four miles from shore, sinking and rolling over on her beam ends almost immediately. She was discovered at daylight by the patrol of Station No. 14, Second District (Monomoy), Massachusetts. The alarm was at once given at the station, eight miles distant, and a whale-boat was manned and launched, although the sea was terrible. The boat shipped much water as she held her perilous course and had to be constantly bailed, but by 8 o'clock her crew got her to the scene of the wreck. When as far as the Shovelfull Shoal light-ship, two miles from the Stone Horse Ledge, nothing could be seen of the sunken schooner, and the life-saving crew had to land on the point of Monomoy beach and go up on the sand-hills to obtain a survey. It was then seen that the vessel was lying on her side in the breakers, with the sea breaking all over her, so that only a small part of her hull was discernible between seas, her mastheads to all appearance resting on the bottom. It was clear, as the surf swept over her, bow to stern, that there could be no living person on board of her. The wind did not abate, and the sea increased with the rising tide, so that it would have been impossible, even if it had been of any use, for the life-saving

crew to get out to her and return. Presently they observed a large square-sterned boat lying at the stern of the Handkerchief light-ship, a little over a mile away, and knew from her build that she belonged to the schooner. It was as they conjectured; the crew of the Thomas D. Harrison had made their escape to the light-ship. At 4 o'clock in the afternoon, the watchers saw the revenue steamer Gallatin steam up and take the captain and crew of the wrecked vessel on board and their boat in tow. The life-saving crew got back to the station at 5 o'clock, leaving their whale-boat at the point. The next day (February 12) they launched the boat at 8 o'clock in the morning, and made an attempt to board the wreck, with the view of saving what property they could, but the strong tide and fresh wind prevented them getting near the hull, which, indeed, was hopelessly buried, the masts being under water, and floods of surf pouring over it.

February 13.—A vessel coming perilously close to the beach, at 5 o'clock in the morning, was made to change her course, and go clear, by one of the patrolmen of Station No. 4, Fifth District (Ocean City, Maryland), burning his red Coston light.

February 14.—An unknown schooner, dangerously close to the bar, was warned off by the patrolman of Station No. 7, Second District (Peaked Hill Bar), Massachusetts, letting blaze a red Coston signal.

February 14.—The German barkentine Japan, bound from Pernambuco to Boston, with a crew of ten men, and a cargo of sugar, lost her bearings in thick weather, and not seeing the land, stranded half a mile from shore at 9 o'clock in the evening, half a mile west of Station No. 7, Second District, Massachusetts. Within an hour afterwards the life-saving crew boarded her with the surf-boat, and as the weather looked threatening, took her crew ashore and kept them at the station until the next morning, when the weather proving good, they gave them breakfast, and took them aboard their vessel, ran out the kedge anchor, set her sails, and hove her off.

February 14.—The crew of Station No. 10, Ninth District (Louisville), went out in their boat and rendered assistance to a barge which had been so tethered to the shore as to make her head swing into the current, making her liable to part her line and go over the falls.

February 16.—The crew of Station No. 17, Third District (Westhampton, Long Island, New York), on this date assisted a crew of three fishermen, whose boat had capsized while going out from the beach through a very heavy surf. The men got a thorough ducking, but managed to get back to the beach without difficulty. Fortunately some of the life-saving crew were near by watching the men's movements, and as soon as the latter got ashore two or three of the surfmen conducted them to the station, and furnished them with dry clothing while the rest went to work and hauled the boat and fishing gear out of the surf to a place of safety.

February 16.—The body of one of the sailors of the bark F. L. Carney, the loss of which occurred on January 22, at a place outside of the scope of operations of the service, identified as that of Thomas Manning, of New York, was found on the south side of Hatteras Inlet, by the crew of Station No. 23, Sixth District (Hatteras, North Carolina), who brought it across the inlet, made a box, and had the corpse buried.

February 18.—The schooner John D. Buckalew, of Perth Amboy, New Jersey, carrying a crew of three men, bound from Hoboken, New Jersey, to Newport, Rhode Island, with a cargo of coal, was totally wrecked on the north shore of Montauk, Long Island, New York, about five miles west of Montauk Point, at half-past 1 in the morning, dur-

ing the prevalence of a strong northerly gale. The place where the vessel struck was beyond the scope of the service, far from any habitation, the nearest life-saving station being some miles distant, on the other side of the island, on the ocean shore, with the high land of Montauk intervening. The captain proposed lowering the boat and getting ashore as quickly as possible before the vessel broke up, as was momentarily expected from her being old. The other men resolutely refused to go, so the captain lowered the boat and succeeded in landing alone. Wet to the skin and with his outer garments frozen stiff, the poor fellow wandered about the rest of the night in search of assistance. At daylight, weak and exhausted, after hours of exposure to the cold, cutting north wind, and badly bruised from frequent falls while stumbling about in the darkness, he came upon the lonely dwelling of one of the guardians of the Montauk property. Upon telling his story he was at once conducted to the nearest life-saving station (No. 8, Third District, situated at Hither Plain), and his wants were properly attended to. The life-saving crew started as soon as possible to the wreck, hoping to be able to rescue the two men, but by the time they arrived the vessel was entirely broken up, and the fragments strewn along the shore for miles, leaving no trace of the two missing men. Thinking it possible they might have reached the shore in safety the keeper dispatched a messenger to the next station east (No. 7), and both crews scoured the surrounding country in the hope of finding them. At last after some hours' search the bodies were found among some wreckage about a mile from where the vessel had gone to pieces. They were removed from the beach and given in charge of the coroner. The more fortunate captain remained at Station No. 8, for three days, receiving all necessary attention until able to travel, when the superintendent of the district conducted him to Bridgehampton, and there secured for him transportation to his home in New Jersey.

February 18 to March 1.—Between these dates the crew of Station No. 10, Ninth District (Louisville), besides their special life-saving service, rendered almost incessant assistance to the sufferers by the memorable flood of the Ohio River. Early in February, the river, swollen by rains, had begun to rise, and by the 18th of that month the whole region at the foot of the streets near the bank was under water, the top of the levee being covered and the basements of the houses filled. The river continued to rise, still further invading the houses, causing many of them to topple and fall, and forcing out the inhabitants. Among the dwellings thus made uninhabitable was that of Keeper Devan. The station crew were engaged from the first in rendering assistance to the occupants of the half-submerged houses. On February 21 they were out in the two station boats and took from houses in danger one hundred and fifty men, women, and children. At three o'clock in the afternoon of that day, they undertook to save the groceries of a dealer named Melcher, the building being in danger of falling. They came up with two boats and a small flat-boat, loading up the latter with stores. They had ferried away one load and had the flat-boat about half filled with another, when the walls of the building suddenly swayed and fell with a crash. The escape of the life-saving men was of the narrowest. Boatman Gillooly jumped from the third-story window into the river as the wall came down, the rest of the crew jumped from the second-story windows, while Keeper Devan had to spring from the flat and swim away to escape the hailing storm of fragments. At the close of this day these men had saved about three thousand dollars' worth of property.

The next day (February 22) the river was about stationary, there

being thirty-five feet and eight inches of water on the falls, a terrible height. The station crew were busy rowing over the immense expanse of water, with houses jutting up here and there, which constituted the submerged district, rendering assistance to the wretched people, most of whom were among the poorest of the population. A wealthy steamboat owner, Captain Hite, had sent a large quantity of bread, meat, and coffee to the station for distribution, and the crew rowed around among the upper stories of sunken houses, dealing out these provisions to those in want of food. By the next day (February 23) a relief association which had been organized had augmented the station stores, and the crew continued to actively deal out bread and meat and groceries to the needy, Keeper Devan being put on a committee to regulate the distribution. The river began to fall slowly. All day of February 24 the station crew continued to dole out provisions, the area of their voyage among the half-sunk houses reaching from the upper to the lower end of the city, a distance of five miles. The suffering and distress they encountered were indescribable. The course pursued was to row from house to house and deposit rations in receptacles, pots, pans, or baskets, lowered by lines from the windows above to receive them. In many cases famished household animals, dogs and cats, were come across, perched upon the roofs of deserted or floating houses, and were given an allowance. By February 25, the river had fallen to twenty-nine feet four inches on the falls. On this date, at the request of the president of the Board of Trade, boatman Tully was detailed to superintend an up-town distribution of provisions to those in want, supplies having been accumulated in a house on Fourth street, between Main and the river. The number of people fed by the agency of the station boats up to this time was above 1,500. On February 26, the continued falling of the river enabled a portion of the station crew to return to their ordinary duties. The keeper and boatman Tully were at the relief store a portion of the day, dealing out provisions to the flood sufferers. By March 1 the subsidence of the waters, and the gradual narrowing of the means for extending general relief as the distress abated, made the relief committee of the Board of Trade decide to discontinue the distribution of supplies, and leave such want as remained to be relieved by private charity. Before adjournment on this date, the Board of Directors of the Board of Trade adopted the following resolution in recognition of the devoted service of the life-saving crew:

"Resolved, That this board desires to express its appreciation of the efficient and untiring services of Messrs. William Devan, John Tully, John Gillooly, Joseph Martin, and Edward Farrell, of the life-saving station, in assisting the committee of the Board of Trade in relieving the suffering caused by the recent overflow. Their acquaintance with the residents of the section of the city where the greatest need existed rendered their aid invaluable, and their prompt and cheerful readiness, both by night and day, to undertake personally the distribution of food to those cut off by the water or driven from their homes entitles them to the thanks of the whole community."

February 18.—At half past 5 in the afternoon, a mule attached to a small wagon, driven by a boy, stumbled over a large stone hidden by the water, on one of the flooded streets near the river at Louisville, and fell heavily, becoming at once so hampered by the harness and shafts that he could not rise, and was in danger of drowning. The boy kept his seat on the wagon, powerless to aid. Three of the crew of Station No. 10, Ninth District, happened to be near, and seeing the situation, instantly jumped into the water and seized the mule, one of them hold-

ing his head out of the water so that he could not drown, while the others endeavored to loosen the harness. Meanwhile, another of the crew, on the lookout at the station not far away, saw the accident and gave the alarm, when he and the keeper launched a boat and came on to the submerged street from the river in quick time. With their aid the gearing was unfastened, and the poor animal helped up and got ashore.

The same day the water rose so high that the valiant keeper, who lived on one of the river streets, had to move his family, as the flood was about to invade his house.

February 19.—Keeper Devan, of Station No. 10, Ninth District (Louisville), was at his house near noon, about half a mile from the station, when he heard cries from the old Bear Grass Creek, and running thither found a man struggling in the flood, whom he caught by the collar and pulled out. On the way to his home, the man gasped out to the keeper that his wife was in the creek and that he had jumped in to save her. The keeper hurried back, but could see nothing of the woman. With the aid of one of his crew, he dragged for the body without avail. He dragged again early next morning and found it.

February 20.—A man was driving a one-horse wagon about noon off the stage plank of the New Orleans wharf boat at Louisville, when the animal slipped and fell into the river. Two of the boatmen employed at Station No. 10, Ninth District, who were standing close by, jumped into the water and saved the horse from drowning, one of them holding his head out of the water, while the other unhitched the harness and released him from the wagon. They brought him safely ashore and turned him over to his grateful owner, who was a colored man.

February 21.—The patrol of Station No. 21, Third District, New York, discovered a steamer very near the beach, and heading directly on. He fired a Coston signal and the vessel immediately hauled off shore.

February 21.—The morning patrol northward from Station No. 23, Fourth District (Little Egg Harbor Inlet, New Jersey), had traversed the entire length of his beat without discovering anything amiss, and was approaching the station after the day had fully broken, when casting a glance seaward before entering the house he sighted a brig, through a rift in the fog to the northward, standing directly for the beach. It was evident she would soon be ashore. He instantly gave the alarm, and while the rest of the life-saving crew, assisted by the keeper of the light-house near by, were hauling the boat out on its carriage, one man was sent on ahead to prevent if possible the brig's crew from landing in their own boats. This precaution was well taken, for by the time the man arrived abreast of the vessel, about a mile distant, she had struck the ground and her people were engaged in hoisting a boat out. The wind was from the eastward and an exceedingly high and dangerous surf was tumbling in upon the beach, with a strong undertow. An attempt to land in their own boat would surely have been attended with fatal results, but the surfman succeeded by shouting and making signs in preventing it. Although greatly fatigued by the exertion of dragging the boat over the yielding sand the life-savers stopped but a moment to recover their breath and then gallantly put off to the rescue, the distance to the vessel being only accomplished after much difficulty. It was the Austrian brig *Achille S.*, of Fiume, from Montevideo, bound to New York with a valuable cargo of hides, the crew numbering nine men. She lay on the bar about three hundred yards from shore and was thumping fearfully, the masts swaying in such a manner that the captain thought they would topple over and crush the boat before

anything could be done. The tide was flood and the sea appeared to increase steadily. After weighing the chances for a moment the keeper resolved upon taking all hands into the boat at once, preferring to effect the rescue at one bold stroke rather than run the risk of failure on a second trip when the sea would be so much greater. It was even then so rough that after shoving off from the vessel he found it necessary to back the boat in, stern first, the surf at times breaking over them in such volume as to almost wash the men from the thwarts. In fact the chances seemed so much against them that the Austrian sailors removed their boots, fully expecting to see the boat thrown bottom up. The greatest difficulty was experienced in keeping head to the sea, but at last by skillful management the beach was reached and the entire party landed in safety, the boat being half full of water and having one of her thwarts broken. The rescue was a splendid piece of work, and it would have been almost impossible for the men to use the breeches buoy apparatus on account of the constantly changing position of the vessel. The wrecked crew remained over twenty days at the station and succeeded in saving the greater portion of the cargo, but the brig became a total loss.

February 21.—At half past 9 at night the sloop Dauntless, of Chincoteague, Virginia, to which place she was bound from New Inlet, with a cargo of oysters, stranded in the breakers on Fox Shoal, Chincoteague Inlet, and became a complete wreck, two of her crew of three men being washed overboard and lost soon after she struck. The particulars of this disaster will be found on page 26.

February 21.—A body, which could not be identified, found on the south side of Hatteras Inlet, was buried by the crew of Station No. 23, Sixth District (Hatteras, North Carolina).

February 22.—At 4 o'clock in the morning, during the prevalence of a heavy northeasterly gale and snow-storm, the schooner Robert Ripley, of Camden, Maine, broke adrift from her moorings in Duxbury Bay and was driven ashore on Long Beach, opposite Plymouth, Massachusetts, the place where she struck being some two or three miles in a west-southwesterly direction across the bay from the life-saving station on Gurnet Point (No. 4, Second District). The schooner had recently delivered a cargo at Duxbury, and, at the time of the accident, was awaiting favorable weather to proceed up the coast to Boston. She carried a crew of three men. When discovered from the station at daylight, she appeared to be nearly high and dry and her crew comparatively safe, the shoal known as Brown's Bank affording a good lee and preventing any dangerous surf from reaching the schooner. The life-saving crew boarded her, however, as soon as it was possible, the boat narrowly escaping swamping in crossing the shoals. Nothing could be done for the schooner that day, as the tide had ebbed and left her nearly dry, and it was only after several arduous efforts had been made that the life-saving crew finally succeeded, on the 17th April, in floating her off, much to the relief of her owner, who was profuse in his thanks to them for thus saving his property.

February 22.—At 8 a. m. the keeper of Station No. 6, Second District, Massachusetts, discovered a schooner at anchor two miles northwest of Race Point, with both masts gone. He went at once to Provincetown and telegraphed to Boston for a tug. At 4 p. m. the tug arrived and towed the vessel into harbor.

February 23.—At 11 o'clock at night the patrol of Station No. 10, Fifth District (Cobb's Island, Virginia), discovered a vessel standing

close in on Carter's Bar. He burned a Coston signal, and the vessel immediately went about and stood off shore.

February 24.—The schooner Pearl Nelson, of Provincetown, Massachusetts, carrying a crew of six men, bound from Wilmington, North Carolina, to Plymouth, Massachusetts, with a cargo of twelve hundred barrels of tar, stranded about one hundred and fifty yards from the beach, head on, at 4 o'clock in the morning, nearly abreast of Station No. 5, Sixth District (False Cape, Virginia), a strong northerly wind blowing at the time with a heavy sea. She was discovered half an hour later by one of the patrolmen on his return to the station to call his relief, and he at once gave the alarm. The surf-boat was soon launched, and the life-saving crew pulled off to the stranded vessel. The sea was so rough that, notwithstanding the exertions of the men to keep their boat clear of the schooner, it was dashed violently against the anchor and badly stove. The boat being thus disabled it became necessary to repair damages before they could return on shore, so it was hoisted on board and patched, the hole being about sixteen inches long by eight wide. When this was done, however, the schooner's crew refused to leave in the boat, preferring to be taken ashore in the breeches buoy. Under these circumstances the keeper decided to return to the beach and rig the beach apparatus, the station being reached at 7 o'clock. The gear was arranged as quickly as possible after the shot-line had been thrown over the vessel, but the crew persisted in their refusal to land until noon, at which time five of them were drawn ashore, one at a time, the captain still remaining on board. Towards dark, however, he made signal and was quickly brought ashore and taken to the station, where all hands were made comfortable for the night.

On the following day (25th), in response to a telegram to Norfolk, a wrecking steamer arrived, and on the 26th the latter took charge of the vessel and ultimately succeeded in taking her off the beach. Although the aid of the life-saving crew was not required by the wreckers in floating the schooner, they rendered valuable assistance with their boat in the transmission of messages and telegrams to and from the vessel during the time she lay ashore, a period of several days.

February 25.—John W. Albin, who was very ill and in a greatly exhausted condition, was taken from the codfish smack Empire State, by her captain, to Station No. 18, Third District, New York. A cordial was given him from the medicine chest to revive him, after which a bed was made for him in a wagon, with mattresses and blankets, and he was conveyed to his friends and medical assistance procured.

February 26.—At midnight on the 22d of February, while her crew were on shore, the schooner Essex, of Machias, which was moored at Jonesport, laden with barrels of clams, ready for a voyage to Portland, dragged her anchors in a heavy wind and snow storm, and went ashore on Pomp's Island, four and a half miles northwest of Station No. 3, First District, Maine, but was hidden from the station by intervening islands. The life-saving crew heard of the disaster on the 26th instant and went to the vessel. They made four trips to her at different times, and on the fourth visit, March 5, succeeded in getting her off by removing a part of her cargo.

February 26.—As the schooner Susanna, of Calcasieu, Louisiana, bound from Corpus Christi to Galveston, Texas, in ballast, and carrying a crew of three men, was attempting to put to sea by way of Aransas Pass, before daybreak, she encountered, when just inside the bar, a thick fog,

which so obscured the channel marks that before the crew could alter her course, upon seeing the breakers under their lee, she went thumping onto the shoals to leeward of the channel. The vessel began leaking badly, and becoming unmanageable as the waters gained on the pumps, she soon drifted in to the south point of Saint Joseph's Island, where she fetched up hard and fast. She was discovered through the fog at daylight by the crew of Station No. 5, Eighth District, a mile and a quarter distant, and boarded as quickly as possible. As the schooner was then badly bilged and rapidly filling with sand, it was obvious that she could not be floated, so at the captain's request the life-saving crew went to work and stripped her of sails and rigging and everything else that could be saved, and conveyed them on board another vessel lying at anchor inside, bound to Galveston, the *Susanna* soon afterwards going to pieces.

February 28.—The sloop *Ocean Star*, of Somers Point, New Jersey, from Hog Island, Virginia, with a cargo of oysters, and having three persons on board, including the captain's wife, in attempting to enter Townsend's Inlet, coast of New Jersey, whither she was bound, stranded on the north bar, about a mile from the beach, at 7 o'clock in the morning. Her situation was soon discovered by the crew of Station No. 34, Fourth District, a mile and a half distant on the north side of the inlet, and they at once went to her assistance, taking a hawser with them in the boat. Upon arrival on board it was seen at a glance that the sloop would have to be lightened to get her in over the bar, so after taking the captain's wife ashore the life-saving crew went to work and removed the deck-load, some sixty bushels of oysters, and landed them on the beach, near the inlet. The sloop's anchor, with the station hawser attached, was then carried out into the channel and the work of heaving commenced. The water being shoal, however, for a long distance, the task of moving her proved very tedious, and it was not until late in the afternoon that they got her afloat and safely anchored inside the inlet. The captain, who partly owned the vessel, was very grateful to the life-saving crew for saving her, as he had not force enough on board to have done the work himself. A delay of but a few hours would have been disastrous, for the wind freshened from the eastward that evening and made the bar very rough, and the sloop would have gone to pieces.

March 1.—The schooner *Hannah M. Lollis*, of Wilmington, Delaware, from Savannah, Georgia, bound for New York, with a cargo of pine lumber and a crew of eight persons, stranded during a strong southeast wind, thick fog, and high, rough sea, at 4 o'clock in the morning, one mile east-northeast of Station No. 6, Fifth District (Pope's Island, Maryland). The north patrolman from the station saw the vessel when she grounded, and reported the case to the keeper within a few minutes thereafter. The life-saving crew at once started with their surf-boat for the scene of disaster, and, arriving on the beach opposite the vessel, launched and boarded her at 5 o'clock, through a heavy surf. The sea was breaking over the vessel, which made the task of boarding her very difficult. The keeper took the captain and part of his crew in the boat and landed them, and then returned for the rest. All were landed safely, with their personal effects, and conducted to the station, where they were fed and sheltered for several days, until they could secure transportation, during which time the life-saving crew labored to save as much of the vessel's property as possible. The schooner was lost, but a portion of her cargo was saved.

"NO. 6 LIFE-SAVING STATION,
"POPE'S ISLAND, MARYLAND,
"March 1, 1882.

"SUMNER I. KIMBALL, Esq.,
"General Superintendent, U. S. Life-Saving Service,
"Washington, D. C.:

"SIR: I desire to express to you my sincere appreciation of the services rendered this morning to me and my crew on board the stranded schooner "H. M. Lollis," by the keeper and crew of No. 6 Life-Saving Station, Pope's Island, Maryland.

"The Lollis struck on the shoals off Pope's Island at 4 a. m. this day, and, although the weather was densely foggy, in a half hour's time the surf-boat from No. 6 Station was alongside and offered assistance. I and crew availed ourselves of this timely aid, and we were safely conveyed to the station and everything possible done for our comfort. The station men have been working all this day in a driving rain-storm and fierce gale of wind, endeavoring to save everything possible from the wreck.

"I cannot express to you and the public the great benefit I have derived from this assistance (to say nothing of the saving of our lives) and the splendid manner in which the life-saving crew have acted.

"Respectfully,

"COLEMAN CAMP,
"Master Schooner Lollis."

March 1.—The sloop Memento, of Onancock, Virginia, carrying a crew of two men, bound from Round Rock to Norfolk, Virginia, with a cargo of corn and potatoes, while attempting to proceed to sea, out of Great Machipongo Inlet, got aground on Rogue's Island Bar, soon after 7 o'clock in the evening. She went ashore at high water, and the weather was dark and rainy, with a heavy sea setting in from the south-east; the place where she struck being about two and a half miles south-west of Station No. 9, Fifth District (Hog Island, Virginia). The vessel was soon afterwards discovered by the patrolman from the station, who gave the alarm, and the life-saving crew turned out to her assistance. They took a hawser with them in the boat, to heave the vessel off by, and, after a hard pull against the sea and wind, arrived on board a little after 9 o'clock. The vessel was in an extremely bad position, with the sea breaking over her fore and aft. One of her crew had already landed with the sloop's yawl, in quest of assistance. Taking in the situation at a glance, the keeper and his men at once bent their hawser to the sloop's anchor and ran it out to a good scope and hove taut. The tide, however, was falling rapidly, and the vessel remained hard and fast, notwithstanding the effort to lighten her by throwing overboard some fifty or sixty barrels of potatoes. Accordingly, at 1 o'clock in the morning (March 2), the men returned to the station, the receding tide having left the vessel almost dry. They boarded the sloop again after breakfast, and resumed operations, the man who had landed the night before following soon afterwards. The sloop had then become so deeply imbedded in the sand, however, that it was not until about sundown, after a very hard day's work, that the life-saving crew succeeded in hauling her off. She was then taken back into the inlet and anchored in a safe place, being in a leaky condition, and with all the remaining cargo damaged. The vessel would undoubtedly have been lost but for the good management of the life-saving crew.

March 2.—Shortly before midnight of March 1, the bark W. J. Stairs,

of Maitland, Nova Scotia, bound from Liverpool to New York with a cargo of salt, and carrying a crew of fourteen men, was totally wrecked off Long Branch, New Jersey, during the prevalence of a dense fog; all but one of her crew being rescued by the men of Station No. 5, Fourth District. (See page 29.)

March 3.—The schooner Bertha, of Stonington, Connecticut, bound from Elizabethport, New Jersey, to New Bedford, Massachusetts, while becalmed and drifting with the tide, was in danger of going on the rocks, when she let go her anchor. She was seen by the crew of Station No. 3, Third District, Watch Hill, Rhode Island, and her position being unsafe, in view of the threatening appearances of the weather, the life-saving crew boarded her, assisted in getting her under way, piloted her through the Race, saw her safe on her way with a fresh northwest wind, and left her.

March 4.—The schooner Rachel S. Miller, of Camden, New Jersey, from Norfolk, Virginia, bound for Elizabethport, New Jersey, with a cargo of lumber, and a crew of six persons, stranded at 8.30 a. m. on the South Breaker, Great Egg Harbor Inlet, one mile east-southeast from Station No. 30, Fourth District, New Jersey, and three-quarters of a mile off shore. The disaster was witnessed from the station, and the life-saving crew boarded her by 9 o'clock. They worked on the vessel all day, throwing her cargo overboard, and trying to get her afloat, but during the afternoon the wind blew a gale from northwest and drove the tide out, so that it was found impossible to move her. On the following day the life-saving crew continued their efforts to get the vessel off, but without success. The keeper called a tug-boat to assist, and the vessel was soon after towed off. The life-saving crew piloted the schooner out clear of everything and left her safely on her way to the northward.

The keeper had observed the vessel was standing into danger when she was a mile off shore and had displayed the warning signal from the station flagstaff, which, however, the captain said he did not notice.

March 5.—Between midnight and 4 a. m. a patrolman from Station No. 29, Fourth District, New Jersey, saw a vessel running into danger. He warned her of her peril by burning a red Coston light, and she went clear.

March 5.—On this date the crew of Life-Saving Station No. 10, Ninth District (Louisville), won the crowning trophy of their year of splendid service, by a great rescue at the wreck of the James D. Parker, a well-known river boat, which was lost, almost in a moment, in the Indiana chute of the Ohio Falls. The James D. Parker was a stern-wheel steamer of over 500 tons, owned by the Cincinnati and Memphis Packet Company, and bound with a miscellaneous cargo from Cincinnati to Memphis. Her crew numbered fifty, including the captain, and she had fifty-five passengers on board, a number of whom were women and children. She had arrived at Louisville the day before, and taken on about 30 tons of freight, in addition to about 500 tons she had on board. Being ready to start, her captain decided to take her over the falls, to avoid the delay of going through the canal. A veteran falls pilot, Capt. Pink Varble, was engaged to handle her, assisted by two other pilots, and as the water was deep, owing to the swollen state of the river, no particular danger was anticipated, the only misgiving felt being on account of the well-known hardness of the boat to steer.

The day was Sunday. A light rain was falling, and the brimming river, running with a swift current against the southwest wind, was roughened into great waves. At about half an hour after noon, the bell on the hurricane deck of the steamer tapped the signal to the deck

hands to let go the lines which moored her to the wharf-boat. There was a considerable crowd upon the wharf-boat and river bank, which burst into loud cheering, accompanied by much waving of handkerchiefs, in sympathy with the handsome sight the steamer made as she crunched and clanked into the stream, with her plumes of smoke and steam drifting above her in the gray air. The acclamations presently died away, and the crowd watched her in silence. She steamed for some distance up the river, then stopped, and the spectators saw her round to and straighten herself grandly for the descent into the chute. In a moment they heard the sharp single stroke of her bell—the signal to go slow, the captain having told the pilot that she steered best on a slow bell—and saw her come sweeping down and past, and go with majesty over the full waters of the dam into the rapids. For a few moments they saw her hold her course superbly down the streaming flood. But presently there was a spectacle which had at first something about it at once perplexing and illusory. They saw the steamer sheer to the left and wobble sideways, her bow gradually disappearing and soon disappearing altogether; then saw her careen suddenly to starboard, her smoke-stacks quietly topple over, and a cloud of steam burst from her high up into the air, like a blast from a volcano. This upward leap of vapor came from the rush of the flood into her furnaces. She had gone down in eighteen feet of water.

The crowd of spectators on shore were at once thrown into the wildest consternation. What had so suddenly taken place was not immediately understood, and it went like wild-fire over the city that the steamer had blown up while descending the chute, and that every one on board had been lost. This was the idea which possessed the swarm of people who came in hurrying streams down every avenue that led to the river side. The straining eyes of the gazers soon saw, however, that the hurricane deck of the steamer was above water, with the passengers and crew grouped upon it, a sight which indicated the real nature of the occurrence and precluded the idea of an explosion. What had really taken place was this. The steamer was going well with the swift current, strictly and without deviation, when suddenly she began to sheer away to the left. The pilot, first by himself, then with the aid of the captain and others, threw the wheel over in the effort to straighten her, but she continued to sheer off. The truth would seem to be that she was loaded unequally, her bow, in which was the greater weight of her cargo, drawing six feet, and her stern only three and a half, so that her rudders were lifted too high to get a good grip of the water and enable her to be steered. She kept sheering, and the pilot, white as death, but cool, seeing that she was heading for a big rock, rang the bell to back her, endeavoring at the same time to straighten her with the helm, but she would not mind her rudders, and, in backing, presently struck the left hand reef. A desperate effort with the wheel straightened her for a moment, but she again sheered to the left, began going down broadside to, swung clear around, and went bumping against the rocks as she drifted, with her bow gradually submerging. Presently her stern was entirely knocked off, her bow went down and hung to the rocks, the after end swung out into the channel towards the Indiana shore, and she sunk, about two hundred feet below the lofty railroad bridge which spans the river, under which she had passed, listing over as she settled, and her upper works rending and breaking and falling in a crashing shower.

The light rain that was descending at the time the steamer was about to shoot the falls had the effect of keeping a large number of the pas-

sengers below, especially the women and children, a circumstance which added features to their experience of shipwreck other than they might have known had they been up on deck, as in fair weather they probably would have been, witnessing the spectacle of their voyage down the swift flood of the chute. The table was laid for dinner in the saloon or cabin when the disaster occurred. The first monition of what was coming received by those below was a rapid succession of thumps, followed by a dreadful crash. A number of the people, including groups of terrified women and children, started to get up on deck, when the boat careened, and at once there was a scene of the utmost horror and confusion. The people rushing around the cabin or scrambling to the doorway were thrown down, the table fell with an immense crash of glass and dinner ware, the supports of the hurricane deck gave way under the wrenching strain of the careen, the roof crushed in in places, and a rain of barrels and boxes and miscellaneous merchandise, the cargo of the deck, fell thundering through among the passengers. Amidst all this instantaneous wreck and ruin were staggering figures, with faces white with terror, and mingled with the tumult of shrieks, cries, lamentations, and heart-broken sobbing, were shouts of command from the deck, the noise of trampling feet, the groaning and creaking of timbers, and the rush and gurgle of waters entering the broken hull. Then came a final shock, and all that was human in the tumult grew still. In the cessation of sound there was a long quiver of the hull, another and last careen, and the sky was seen through the rifted bulkhead. The steamer had parted from stem to waist, and was now a dead wreck. The spectacle she would have presented to any outside gazer was that of a mass of crushed and splintered timbers, bales and boxes of merchandise, spars, ropes, chains, and rigging, jutting from the water, which nearly submerged it, two black smoke-stacks hanging obliquely from it, still held by their guys, and the whole surmounted by a broken slant of hurricane deck, crowded with wild and desperate figures. This dismal mass constantly quivered with loud cracking noises, mingled with the roar of the water which plunged and spouted up around it.

The passengers, men, women and children, had, as already intimated, succeeded in climbing out of the canted cabin upon the upper deck. So steep was the floor that several of the ladies on the lower side had to put chairs one above another to enable them to reach the door. The water had soon begun to enter the cabin on the lower side, and one lady among the latest to escape was waist-deep when dragged out through a hole in the roof by the captain. All the occupants of the cabin were fortunately extricated, and for the first time since the catastrophe, grouped upon the summit. With the assurance that the wreck rested on the bottom and could sink no deeper, the unfortunate people began to hope that they might yet be saved, when a new horror was dashed upon them. The stove in the saloon had been overturned when the boat careened, and the wreck had taken fire. Already the blue smoke was seen curling up from below, and in it, flickering and vanishing like the tongues of snakes, were flames. The sense of what might presently happen sickened every heart, but the stage of wild fright was over, and recovering their self-possession, the male passengers fell to with the crew and fought the flames with buckets. The fire broke out again after being once subdued, but was finally got under for good.

The whole catastrophe, with its wild drama of perils and apprehensions, took place within ten minutes, and before the expiration of that time the imperiled concourse on the hurricane deck, with the water

lapping around them, had taken courage from the sight of the life-saving boats shooting toward them from the distance. In fact, the steamer had little more than gone down before the life-savers, from the station three-quarters of a mile away, were alongside, red and wet with their tremendous row. So prompt were they to bring deliverance to the company upon the wreck. With their keen instinct for danger, they had scented disaster to the vessel almost before its first beginning, and had lost no time in launching to the rescue. Boatmen Edward Farrell and John J. Tully were in the station lookout when the steamer went into the chute, and instantly saw that she was going to become unmanageable. They at once gave the alarm, and the next minute the keeper, Capt. William M. Devan, was in one boat, the Reckless, with Farrell and Tully, while Boatmen John F. Gillooley and Joseph Martin, with a gallant volunteer, Capt. Jim Duffy, leaped into the other, the Ready, and the two boats sprang upon the track of the steamer with an energy that made their strakes quiver and their oars bend like reeds. As they sped their furious course the two crews had upon their minds the exhortation roared at them by the lion-hearted keeper upon starting, that every soul on board the steamer would be lost if they did not arrive before she went down, and with this thought they made the rowlocks rattle, tearing straight over the dam and down the chute with a speed that outran its current, in the wake of the drifting and sinking hull. When they foamed up alongside she had just sunk—fortunately in comparative shallows—four hundred yards from shore, and lay, as already described, heeled over, with the lower part of her hurricane deck under water. Upon the slanted upper part—the only portion of the wreck not submerged—they saw her passengers and crew, one hundred and five persons in all, a pallid and trembling assemblage, who welcomed their appearance with cries and imploring gestures. Not a moment was lost. Both boats dashed up to the edge of the half-sunk deck, the keeper shouting to the people, "Get into these life-boats quick!" A door was wrenched off the cabin for a gangway plank, and on this incline the people began to slide down into the boats, the women and children first, and the work of the rescue began with fury. It was not known at what moment the cabin top might fall to pieces or be torn off by the waters, so that the moment a boat was filled she raced for the Indiana shore, four hundred yards away, discharged her cargo of saved, and tore back again for another load. In this way about twelve trips were made, and eighty persons were landed by the men of the station. The remaining twenty-five were picked up in the water, some of them a mile or two down the river, clinging to casks or boxes, a number of skiffs and boats having arrived upon the scene as the life-saving work went on. No one perished, and the life-saving crew were divided between exultation at the success of their own valiant efforts and wonder that a wreck so complete and utter should have happened without the loss of a single life.

As soon as the passengers and crew were all safely landed, the life-saving men busied themselves in saving all the baggage they could. About nine hundred dollars' worth of luggage was recovered by them. In many instances the grateful passengers offered them remuneration, which was invariably refused. A passenger in one instance offered Boatman Tully \$25 if he would get him his valise. The valise was brought ashore, but the reward was declined. Actions like these, and their prompt appearance and electrical energy and efficiency in the dreadful hour of disaster, made the Louisville life-saving crew almost idolized by their fellow-citizens, and the town rang with their praises. Amidst this tumult of acclaim they steadily went on saving baggage

all day on the 5th, and on the 6th, 7th, and 8th exerted themselves in assisting to save cargo, about five thousand dollars' worth of which was landed, although of course in a water-soaked condition. Their labors were recognized by the following handsome letter from the captain of the lost steamer.

" LOUISVILLE, KENTUCKY, *March 10, 1882.*

" CAPT. WILLIAM DEVAN AND ASSOCIATES,

" *Of United States Life-Saving Station No. 10,
Louisville, Kentucky:*

" GENTLEMEN: Your promptness in reaching the scene of the disaster to the steamer James D. Parker, on Sunday, the 5th instant, when the boat was a helpless wreck and fast going to pieces on the rocks on the falls of the Ohio, and your bravery at that time in assisting the passengers and crew, numbering one hundred and five souls, to a place of safety without the loss of a single life, is worthy of the highest praise.

" You are brave men—life-savers, in deed and in truth—well named. For myself and others on board the James D. Parker that fatal Sunday, accept our grateful thanks, with the assurance that we shall hold you in grateful remembrance always.

" Very truly, yours, &c.,

" WM. C. TICHENOR,
" *Master Steamer James D. Parker.*"

The praise bestowed upon the life-saving crew by the captain is manifestly not undue. Their promptness in starting at once for the steamer the moment they suspected she would get into trouble, without waiting for a signal of distress, brought them to the rescue upon the very heels of the catastrophe, and undoubtedly prevented a loss of life which would have probably been great. As already remarked, the passengers and crew, massed upon the hurricane deck in the first wild moments of the unexpected disaster, saw them coming at headlong speed down the chute, with giant strokes of the oars, and the sight of this arrowy rush of boats of rescue, and the knowledge of the prowess of the life-savers, sent hope and courage to those failing hearts, and prevented the panic which would have impelled scores of people to leap overboard to their destruction. The grateful enthusiasm of the saved found expression the next day in the presentation to the life-saving crew of a splendid silver water-service—a swinging ice-pitcher and goblet—bearing the following inscription:

PRESENTED TO

CAPTAIN DEVAN AND LIFE-SAVING CREW,

IN RECOGNITION OF THEIR HEROIC SERVICE IN SAVING THE PASSENGERS AND CREW
OF THE STEAMER J. D. PARKER,

MARCH 5, 1882.

The presentation was made by one of the passengers, Mr. J. C. Hern-
don, in the following neat speech:

"CAPTAIN DEVAN AND GENTLEMEN OF THE LIFE-SAVING SERVICE:
On behalf of the passengers of the ill-fated steamer James D. Parker,
permit me to present you this testimonial of our grateful appreciation
of your services in rescuing the passengers and crew on the occasion of

the frightful disaster which overtook us on the falls of the Ohio yesterday. I express the sentiment of every man, woman, and child who was on board that boat, when I say to you that we shall always hold in grateful remembrance your prompt action in coming to our relief, and the gallantry and efficiency you displayed in rescuing us from our perilous situation. In conclusion, I beg to express the hope that our National Government, the most beneficent on earth, will foster and aid, in the most substantial manner, the Ohio Falls Life-Saving Service, and increase your facilities for rendering that aid for which your experience and heroism so eminently fit you.

March 6.—About five thousand feet of cypress lumber, which was drifting along shore, was saved by the keeper and crew of Station No. 33, Fourth District, New Jersey, and at date of the keeper's report was held at that station awaiting the order of its owner.

March 6.—About half past 9 o'clock in the evening a man fell into the river from the New Orleans wharf-boat, and Boatman Martin, of Station No. 10, Ninth District (Louisville), jumped into a skiff which was tied to the boat, and rescued him.

March 6.—At half past 9 o'clock at night, three of the crew of Station No. 10, Ninth District (Louisville), started out in the boat, and saved a horse which had fallen into the river from the gangway plank of the New Orleans wharf-boat, and would have been drowned but for their intervention.

March 8.—Between 8 p. m. and midnight the patrolman from Station No. 19, Third District, Long Island, saw a schooner standing into danger. He burned his red Coston signal, and the vessel went clear.

March 8.—In the first watch, from 8 p. m. to midnight, a patrolman from Station No. 31, Fourth District, New Jersey, discovered a steamer close in shore. He warned her by burning his red Coston signal, and she stood out to sea.

March 8.—Near midnight a patrolman from Station No 5, Sixth District, Virginia, saw a bark standing into danger. He burned his red Coston signal, and the bark stood off.

March 8.—At half past 4 in the afternoon the lookout at Station No. 10, Ninth District (Louisville, Kentucky), discovered a small skiff with two men in it drifting rapidly towards the Cross Dam of the Falls of the Ohio, the terror-stricken men seeming powerless to stem the current. The alarm was instantly given, and four men, three of whom were members of the life-saving crew, and the fourth a volunteer, named Schuck, were at once dispatched by the keeper in one of the station boats to the rescue. The skiff was then a quarter of a mile from the station and nearing the dam with frightful rapidity. The rescuing party shot out from the floating station, at the river bank, with sturdy strokes, and upon overtaking the skiff before it reached the dam hastily passed the men a line with the intention of towing them up stream. It was too late, however, for the current was running like a mill-race and more than a match for the gallant little band, the result of the struggle being that both boats were hurled over the dam and turned bottom up, and the occupants of each thrown floundering in the water. The keeper had ascended to the lookout on the roof of the station to watch the movements of his men, and upon observing that an accident was inevitable quickly put off in the remaining station boat with the other member of his crew and a Mr. Charles Kreimer, wharf-master at Louisville, who fearlessly volunteered his services. The three men, after descending the dam in safety, proceeded at once to rescue the people from the

water. The first man saved was one of the station crew who had managed by diving to reach the comparatively quiet water under the falls. After fishing him out they turned their attention to the others, who were clinging to the upturned boats, and in a short time the entire party were safely in the keeper's boat, which, with the other boats in tow, was headed for Portland, on the Kentucky side of the river, below the falls, where all hands landed and dry clothing and necessary restoratives were obtained for the poor fellows, who were shivering in their wet garments and completely chilled through. It was indeed a remarkably narrow escape for the entire party, and the keeper and those with him won much praise for their gallantry, although the keeper modestly attributed the successful result mainly to the valuable assistance of the wharf-master, Mr. Kreimer, who had so nobly volunteered to go with him.

March 8.—At 3.45 P. M. the schooner George Louis, of and from San Francisco, California, for Timber Cove, in ballast, with a crew of four men, while beating down through the Golden Gate against a fresh north-westerly wind misstayed and went ashore under the cliffs near Fort Point at a place about six and a half miles, by land, from Station No. 7, Twelfth District (Golden Gate Park). It was impossible for the accident to be seen from the station, and the keeper was not aware of its occurrence until the fact was reported by a messenger from Capt. John Low, of the Point Lobos Signal Station, who, upon discovering the vessel ashore, dispatched his son, George B. Low, to the station, and then hurried to the spot alone to render assistance. The keeper immediately sent off for a team to draw the apparatus, and was soon on the way to the stranded vessel, arriving on the scene about 5 o'clock after a hard ride. By that time the captain and two others of the schooner's crew had managed, with the assistance of Captain Low, to climb the rocks and were safe, the cook, who was badly hurt by his efforts to make the ascent, being still at the foot of the cliff, unable to help himself. As young Low was the lightest man of the party he gallantly volunteered to make the descent and attach a line to the poor fellow so he could be hauled up. Accordingly, the young man was lowered over the precipice, a distance of seven hundred and eighty feet, by one of the station lines, and upon reaching the foot of the cliff he bent a line around the man's body and he was safely hauled to the top. As he was unable to walk and in great pain, he was taken to the house of Captain Low, which was the nearest place of shelter, and was there properly cared for until the next day, when he was removed to San Francisco. The report of the district superintendent states that but for the timely arrival of the station appliances the man must soon have perished, the place where he was being a very dangerous one and inaccessible except by perilous descent from the top of the cliff, as undertaken by young Low. The vessel broke up during the night, and, on the following day scarcely a vestige of her was to be seen.

March 9.—Between 8 P. M. and midnight a patrolman from Station No. 20, Third District, Long Island, the weather being thick, discovered a vessel standing into danger. He burned his red Coston signal, and thus warned the vessel stood off-shore.

March 10.—In the night a patrolman from Station No. 7, Fifth District, Virginia, discovered a vessel in danger of stranding on Chincoteague Shoals. He burned his red Coston signal, and thus warned she went clear.

March 11.—The sloop Peerless, of New York, bound for Canarsie, with one man on board, was capsized a little after noon in a heavy north-

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west gale, half a mile from shore, and about a mile northwest of Station No. 36, Third District (Rockaway Beach, Long Island). The station crew launched the surf-boat, and after an hour's hard rowing through a high sea, which filled the boat half full of water, they succeeded in reaching the wreck and took off the man, whose life was thus undoubtedly saved. He was brought to the station and succored, remaining there one day. The sloop was righted and saved.

March 11.—After the rescue of the man from the wreck of the Peerless, the crew of Station No. 36, Third District, saw two men, who had gone out from Barren Island with the intention of boarding the sloop, driven ashore before the gale in a small boat just opposite the station, and brought them to the station, where they were sheltered for the night.

March 11.—The schooner Alvira, of Millville, New Jersey, bound to that place from Pocomoke City, Maryland, with a load of ship-timber, and a crew of five men, parted her moorings in Chincoteague Harbor, Virginia, during a heavy blow from the south, drove ashore in the harbor, and stranded three hundred yards from the beach and about four miles back from Station No. 7, Fifth District, with Chincoteague Island intervening. Her captain, however, easily kedged her off at high water the next morning, at which time the life-saving crew boarded her in the surf-boat and rendered effective service by dragging for her large anchor and chain, which had been lost, and without which, as she was riding by her small anchor and chain, and the wind had changed and was blowing strongly from the northwest, she was liable to drag and be carried into the rough waters of the inlet below the harbor. After several unsuccessful efforts, the keeper succeeded in grappling the chain, which was then properly buoyed, and at ebb tide taken up, with the anchors.

March 12.—The lookout from Station No. 10, Ninth District, discovered a large river skiff, the D. P. B., of Jeffersville, Indiana, adrift near the falls of the Ohio. The keeper at once dispatched three of his crew to recover the boat. They towed it to the station, where it was soon after claimed by the owner.

March 13.—At 7 P. M. the schooner Annie L. Palmer, of Bath, Maine, from Baracoa, Cuba, for New York, with a cargo of fruit, and a crew of six persons, stranded one mile north of Station No. 16, Fourth District, New Jersey, and about two hundred yards off-shore. The patrolman from the station witnessed the disaster, and reported it to the keeper without delay. The life-saving crew boarded the vessel by 8 o'clock, and found that she had grounded at low water and could not be moved until the tide rose. They accordingly ran an anchor to keep the vessel from working farther on, and waited for flood-tide. At half past 2 the next morning the tide had risen sufficiently, and they succeeded in heaving the vessel off, and took her to a safe anchorage. The keeper remained on board the schooner until daylight, assisted with his crew in getting her under way, and left her on her course.

March 14.—At 6 A. M. the patrol from Station No. 8, Fifth District, Virginia, reported a vessel ashore on Metomkin Bar, six miles south of the station. The surf-boat was at once launched, but after a hard pull the life-saving crew were unable to reach the vessel, owing to the gale and sea, which they could not make headway against. They then proceeded to the wrecking steamer Resolute, at anchor in Watchapreague Harbor, and reported the case. The steamer took the crew on board and their boat in tow, and proceeded in the direction of the stranded vessel. As they neared her, it being high water, the schooner floated, made sail, and went on her way. Her name was not learned.

March 14.—At half past 10 o'clock a patrolman from Station No. 15,

Sixth District, North Carolina, discovered a steamer running dangerously close inshore. He burned his red Coston signal, and the steamer stood off and went clear.

March 14.—At 11 o'clock at night the patrol from Station No. 16, Sixth District, North Carolina, discovered a steamer standing into danger, burned his Coston signal, and thus warned she hauled off-shore and went clear.

March 15.—About noon the light-house keeper at Two Rivers, Wisconsin, descried through a snow-storm a steam barge ashore, four miles north of Station No. 17, Eleventh District, and her crew of five men making signals of distress, the heavy surf and masses of floating icebergs making it impossible for them to leave their vessel for the land. The barge proved to be the Grace Patterson, of Manistee, Michigan, bound from that place to Milwaukee, Wisconsin, laden with laths. She had sprung a leak about fifteen miles off-shore at midnight, made for the nearest port, and finally stranded about 4 o'clock in the morning. No patrols were out from the station, which was closed, the season of navigation not having arrived, and the vessel was not therefore discovered before noon, when, as related, she was seen in the distance by the light-keeper, the falling snow having hid her until then from observation. By 1 o'clock the light-keeper got news of the wreck to the keeper of the life-saving station, who mustered a volunteer crew and started in the surf-boat for the scene in fifteen minutes. The wind, which was dead ahead, and the heavy sea, made hard rowing for the surf boat crew. By 2 o'clock they caught sight of the barge through the snow, and an hour later they came up alongside. They found her sunk, her deck three feet under water, and her crew of five men up in the rigging. The men were helped down into the boat, which at once started back for the station, where it arrived at 4 o'clock in the afternoon. The keeper showed the rescued sailors to a telegraph office and afterwards to a hotel, and left them, receiving from them many expressions of gratitude for their deliverance from the suffering they had been in since 4 o'clock that morning in the rigging of the vessel.

Considerable labor was subsequently bestowed by the life-saving crew upon the wrecked vessel. The next day (March 16) they went out to her in the surf-boat with the view of seeing what could be done toward recovering articles of value on board. The day following there was a strong blow from the southeast which interrupted operations. On March 18 the crew again went out to the vessel in a fish-boat, and brought ashore some of her furniture and seventy-five bundles of laths. They found her four feet under water aft, but out of water forward. A tug arrived toward evening, which had been hired to work her off. On March 19 the life-saving crew brought ashore more of her cargo. Rough winds now impeded operations, and on March 22 the tug abandoned work on the sunken barge. On March 24 the crew labored, with the men of a fresh tug and a scow, to get a steam-pump on board the wreck, but were baffled by the heavy surf. For several days after the wind and surf prevented action, but on March 30 the life-saving crew, aiding the crews of a tug and a scow, set up a steam-pump on the wreck, and got up the steam, but a bad wind sprang up and suspended work. On April 1 an attempt was made to resume, but just as the barge was reached, the wind again sprang up and compelled a return to the station. On April 3 another visit was made ineffectual by the surf. The station activity at the wreck was resumed on April 7 in an effort to get the steam-pump off from her, the wrecking tug having found it impossible to work on her on account of her deck aft being under water. The wind again

sprang up and forced the crew to put back to the station without the pump. On April 15 another wrecking tug arrived, and the life-saving crew rendered assistance in running out lines to her from the wreck. The effort to pull off the barge failed, however, and the lines had to be released. On April 28 the station men rendered service in assisting a tug to get the steam-pump off the wreck, another wrecking company having undertaken to get the barge off. At the latest accounts she was still in her unfortunate situation, half submerged, despite all the labor that had been bestowed upon her.

March 16.—James Leighton, one of the crew of the fishing schooner Nettie Gaskell, of Rockport, Massachusetts, while tending his trawls, on the night of the 15th instant, about ten miles east-northeast of Station No. 1, Second District, Massachusetts, lost sight of his vessel in the darkness, and being unable to find her beached his boat and went to the station, where he was sheltered. At 10 A. M. the vessel came up off the station and the life-saving crew put Mr. Leighton on board.

March 16.—The brig Thetis, of and for New York, from Bon-Air, West Indies, with six passengers and a cargo of salt and logwood, and carrying a crew of eight men, making fourteen persons on board all told, went ashore during a furious easterly snow-storm on Long Beach, New Jersey, about one-fourth of a mile south of Station No. 20, Fourth District, in the locality known as Ship Bottom, the vessel striking on the bar about two hundred yards from the beach at 4 o'clock in the morning. Her perilous situation was discovered by the station patrol fifteen minutes after she struck. The alarm was at once given at the station, and by 5 o'clock the life-saving crew had their boat and other appliances on the ground, word also being sent to the two adjacent stations (Nos. 19 and 21), the crews responding with alacrity and arriving soon afterwards. As a very high surf was rolling in upon the beach, rendering an attempt to go off in the boat extremely hazardous, it was decided to use the breeches buoy. The first shot from the wreck gun carried the line over the brig's fore-royal yard, and being passed down on deck the apparatus was soon hauled off and rigged. There were two ladies and three children on board, and when they were safely landed the crew followed as rapidly as the gallant band of life-savers could work the apparatus, not a hitch occurring to mar the success of the operation. The rescued people were at once taken to Station No. 20 and properly cared for until the next day, when they left for New York, the brig in the meantime breaking up, and, with her cargo, becoming a total loss.

March 17.—At 3.30 P. M., during a strong gale from the northeast, a vessel was seen by the keeper of Station No. 4, Second District, Gurnet Point, Massachusetts, to anchor in a dangerous position near Brown's Island Shoals, half a mile southwest of the station and the same distance off-shore. He launched his surf-boat at once, and after a hard pull through a long line of breakers reached the vessel. She proved to be the British schooner Hudson, of New Carlisle, Canada, from Porto Rico, for Boston, with a cargo of molasses and a crew of six persons. The keeper warned the captain of his danger, advised him to let go another anchor, and, finding that he could be of no further assistance, left him. Watch was kept on the vessel from the station, and when the wind moderated on the following day she proceeded on her way.

March 18.—At midnight a patrolman from Station No. 9, Fifth District, Virginia, discovered a steamer close inshore, and in danger of

stranding. He swung his lantern and burned his red Coston signal, and, thus warned, she went clear, after striking once or twice.

March 18.—At half past 10 in the morning the river steamer *Montana*, of and from Pittsburgh, Pennsylvania, for Saint Louis, Missouri, upon approaching the entrance to the Louisville and Portland Canal at the Falls of the Ohio, Louisville, Kentucky, found the passage, which is very narrow, obstructed by a coal barge lying directly athwart the channel. In trying to avoid collision with the barge the steamer missed the entrance of the canal and was carried by the current over the "wing-dam," stern first, and there stuck fast. The lookout at Station No. 10, Ninth District, about half a mile distant, witnessed the accident, and upon giving the alarm both the boats belonging to the station were manned and the life-saving crew proceeded to the vessel at once to render such assistance as might be necessary. The steamer had a crew of fifty-two persons, all told, and eight passengers, and was loaded with miscellaneous freight. Upon going alongside, the keeper offered to land such of the passengers as desired to leave the vessel, and seven of the number availed themselves of the opportunity and were conveyed ashore by the station boats. After that the life-saving crew ran a hawser ashore to hold the steamer in position, and assisted in hauling a barge alongside to lighten the cargo. By the removal of the cargo, which was mostly made in the night, the steamer was enabled to float off the next morning, and she then proceeded to Portland, below the falls, and reloaded from the lighter, and afterwards resumed her trip down the river but slightly damaged by the accident.

March 19.—At half past 10 in the forenoon the schooner *Margaret Amelia*, of Absecon, New Jersey, bound from Port Republic to New York, with a cargo of pine wood, and carrying a crew of three men, while standing out of Little Egg Harbor Inlet, got becalmed near the bar, and was obliged to anchor to avoid being carried by the ebb-tide onto the shoals. The schooner's ground tackle was very poor, and the captain, fearing it would not hold, hoisted a signal for help from the station, about a mile distant on the north side of the inlet (No. 23, Fourth District). The life-saving crew went at once on board, and, when the flood-tide made, assisted in getting the vessel under way and took her back into the harbor until a favoring wind sprang up, enabling her to proceed on her voyage, the only damage sustained being the breaking of her anchor. The sea was so heavy that the schooner would probably have dragged onto the shoal and become a wreck but for the aid of the life-saving crew.

March 19.—On this date, soon after their return from the steamer *Montana*, one of the crew of the Louisville station (No. 10, Ninth District) rescued a lad named Parsons, son of Hon. E. Y. Parsons, deceased, who had fallen into the river while at play near the station, the crew taking proper care of him until his clothes could be dried, and then sending him home apparently none the worse for the accident.

March 21.—The schooner *C. H. Moore*, of Galveston, Texas, carrying a crew of four men, while putting to sea by way of Sabine Pass, with a cargo of shingles from Orange, Texas, for Corpus Christi, broke her center-board so that it could not be used, and was compelled to anchor and repair the damage, the accident occurring about noon. The vessel lay about half a mile northwest of Station No. 1, Eighth District, located at the pass, and the life-saving crew, in response to the captain's call for aid, went on board and assisted in discharging sufficient of the cargo stowed amidships to enable them to unhang and remove the broken center-board in order to properly repair it and enable the schooner to

proceed on her voyage, the work required of them being completed and the men returning to their station by 6 o'clock in the evening.

March 21.—At 2 o'clock in the afternoon, as the steam-tug *Ethel*, of Brownsville, Texas, was being hauled out on a marine railway temporarily constructed upon the inner shore of Brazos Island, for the purpose of effecting some repairs to the vessel below the water-line, a sudden gust of wind struck her and swung her around clear of the cradle and drove her onto the bank, the force of the wind being so great that her anchor dragged over the bottom and failed to hold her when she left the ways. In this dilemma the carpenters at work upon the vessel sought the aid of the crew of Station No. 6, Eighth District, about half a mile distant. The life-saving crew promptly responded and proceeded to the spot as quickly as possible in the surf-boat, considerable difficulty being experienced, even with the aid of four extra men, in hauling the boat across the island on its carriage to the bay shore, against the wind, the drifting sand beating directly in their faces and almost blinding them. The tug was hard and fast aground, the united efforts of the carpenters and laborers failing to move her. The life-saving crew went to work systematically by carrying out a spare anchor into deep water, running the hauling part of the hawser attached thereto back to the vessel, where a number of men were in readiness to clap on and heave the tug off. The efficient help of the men from the station had the desired effect, and the *Ethel* was soon floated off without damage.

March 23.—At 3 o'clock in the morning the patrolman of No. 33, Fourth District, New Jersey, saw a vessel standing into danger. He burned a Coston light and she wore off.

March 23.—The schooner *Martha Collins*, of Baltimore, Maryland, carrying a crew of five men, bound from the Pamunkey River, Virginia, to New York, with a cargo of pine wood, stranded at 3 o'clock in the morning at a point about three and a quarter miles to the northward of Station No. 4, Fifth District (Ocean City, Maryland). Several vessels were seen to anchor by the mid-watch patrol from the station, but as it is the common practice of coasters to come to, close in under the land, during the prevalence of strong off-shore winds, such as was blowing at that time, the fact that one of them was aground was not suspected, especially as no signal was made for assistance. The shoal on which the vessel grounded was about two hundred yards from the beach, it being low water when she struck. At daybreak the morning watch discovered that the schooner had set her colors in the rigging as a signal of distress. The alarm was at once given, and the life-saving crew quickly launched their surf-boat and pulled up to the vessel, arriving alongside at 7 o'clock. She was then so badly bilged that all hope of saving her was out of the question. It was therefore decided to abandon her. The schooner had a good boat which it was desirable to save, so it was hoisted out and manned by the vessel's crew, in charge of one of the surfmen as steersman, while the captain took passage in the surf-boat, in which the crew's baggage was also put, and both boats were started for the station, a pull of over three miles. The surf-boat was beached first and hauled up, and then the station men stood by to assist the yawl which was brought in over the bar, although the surf was quite rough, in a very handsome manner by the surfman at the steering oar, the boat being seized by his waiting comrades as soon as it was within reach and run high and dry. All hands reached the station shortly after 8 o'clock, the life-saving crew having made the trip to and from the vessel in about two hours. After breakfast the

entire party returned to the schooner and stripped her of sails and rigging. The vessel was a total loss.

March 23.—The schooner Fannie E. Lawrence, of Philadelphia, bound to that port from Apalachicola, Florida, with a load of lumber, and having on board a crew of eleven men, was observed at noon apparently aground, about twelve miles south of Station No. 23, Sixth District (North Carolina), and the men at once launched the surf-boat and started to her relief. After pulling out about eight miles in a strong breeze and heavy sea, the surf-boat crew met three men, who informed them that the schooner was not aground, but only at anchor, under which information the boat returned to the station. The information proved false, however, for the vessel in attempting to tack when near the land had misstayed and stranded. The next day the captain, who had landed with his sailors in the ship's boat, came to the station and reported what had occurred. Nine of the men were succored at the station for three days. The vessel was a total loss.

March 24.—The British brig Three Cheers, of Halifax, Nova Scotia, carrying a crew of seven men, bound from Manzanillo, Cuba, to New York, with a cargo of sugar and molasses, went ashore on Long Beach, New Jersey, one mile south of Station No. 20, Fourth District, at 4 o'clock in the morning, the weather at the time being quite hazy and a high sea running. She was discovered twenty minutes later by the south patrol, who at once hurried to the station and aroused his comrades. The men turned out as quickly as possible and proceeded to the stranded vessel, taking with them their boat and the breeches-buoy apparatus. A gallant attempt was made to board the vessel, but upon nearing her the sea was found so extremely rough that it would have been impossible to lay alongside. Recourse was therefore had to the breeches-buoy apparatus. The second shot was successful, the line falling over the brig's fore-yard. While the apparatus was being rigged the crews of Stations Nos. 19 and 21 arrived and lent their aid. Five of the brig's people were quickly landed, but the captain and the mate still remained on board, the rescued men reporting that the captain had been badly injured by a fall the day previous and was unable to leave his berth, and that the mate persistently refused to leave him. In this state of affairs one of the crew of No. 20 was sent off in the breeches buoy to the captain's aid, and after some difficulty he and the mate succeeded in getting the injured man, who was perfectly helpless, into the buoy, and he was then safely drawn ashore, his trusty mate and the surfman following soon afterwards. The rescued crew were taken to the station and cared for, and a messenger dispatched to the main-land for medical aid for the captain, who was suffering intensely. The doctor was unable to reach the station until the second day (26th) afterwards, and by his advice the captain was removed on the 27th to Manahawken, on the main-land, where he could receive better attention than the limited resources of the station afforded. On that day the gallant life savers performed a second service in connection with the brig under the following circumstances: The wrecking crew who had arrived from New York and were at work removing the cargo preparatory to getting the vessel off, made signal for assistance, finding it necessary to leave her on account of the sea, which was again rough, and had compelled them to stop work, one of the wreckers having his leg broken by a block striking him. The crews of Stations 19 and 20 were quick to respond, and soon brought the wreckers, nine in number, ashore in safety. The brig was afterwards floated off and with her cargo taken to New York.

March 24.—The keeper of Station No. 27, Fourth District, New Jer-

sey, saw a bark steering a course that would have soon run her on Brigantine Shoals. He signaled her, and she altered her course and went clear.

March 26.—At 6 P. M. the crew of Station No. 14, Second District, (Monomoy, Massachusetts), saved a schooner from running ashore by displaying the signal-flag J. D. (you are standing into danger). The schooner was then a quarter of a mile from the beach, and rapidly nearing the bar, but immediately upon the display of the warning flag tacked and stood off-shore.

March 26.—At half past 4 o'clock in the afternoon a small boy, six years old, named Eddie Mack, fell into the river, and was hauled out by boatman Tully, of Station No. 10, Ninth District (Louisville), and taken home to his parents.

March 27.—At 11 o'clock in the forenoon, the weather being stormy, a schooner was seen standing in towards Sandy Creek, and the keeper of Station No. 1, Ninth District (Big Sandy, Lake Ontario), knowing that the passage was difficult, launched the surf-boat with several of his crew, sounded the channel, and placed temporary buoys, enabling the vessel to come into harbor safely.

March 27.—The three-masted schooner E. M. Portch, of Chicago, Illinois, bound from that place to Rowley's Bay, Wisconsin, without cargo and having a crew of eight men, came into collision early in the morning with the steam barge Leland, about fifteen miles northeast of Sheboygan, Wisconsin, and stove a large hole in her port bow, which caused her to leak so badly that she was soon in danger of foundering, and it became necessary for the steamer to take her in tow and make with all the speed possible for Sheboygan. She was seen by the keeper of Station No. 16, Eleventh District, at 6 o'clock in the morning, anchored about a mile from the harbor, but showing no signal of distress, and soon after the keeper noticed some of her crew coming toward the shore in their yawl, presumably for provisions. But about half past 6 the mate of the schooner came to the keeper's house and reported the condition of the vessel, requesting assistance. The season of navigation on the lakes not having opened, the station was shut, but the keeper at once mustered a crew and launched the surf-boat, at the same time starting out to aid the schooner three steam fish-tugs of which he had control. The wind was blowing from the north, and there was a drizzling rain and a high sea. By half past 7 the surf-boat arrived, and the keeper and his men boarded the schooner. They found her half full of water and leaking fearfully. The pumps were at once set going, her anchor and chain were let slip, and the three tugs took her in tow, but such was the stress of the wind and sea that it took three hours to tow her a mile, her leak increasing constantly despite the effort to free her of the water, and finally, when about a hundred yards from the harbor, she filled and sunk in some twelve feet of water. As she was going down the keeper and his men left her for the surf-boat, taking the shipwrecked crew with them, the water breaking clean over the vessel. Her sailors were taken by the keeper to the station, and after they got warm he escorted them to a boarding house. The vessel was lost.

March 28.—At half past 8 in the morning, the weather being cloudy and the surf rough, the schooner W. W. Hungerford, of Mobile, Alabama, a new vessel, bound on her first voyage from that place for Point Isabel, Texas, with a cargo of lumber, and having on board a crew of six men and one lady passenger, was making her way, in charge of a pilot, off the east end of the island of Brazos Santiago, Texas, when the wind treacherously fell just as the vessel was between the inner and outer bars,

and the heavy swell of the sea at flood-tide at once threw her into the breakers, converting her situation into one of great danger. The keeper of Station No. 6, Eighth District, was abreast of her upon the beach when this mischance occurred, and hailed her through his trumpet, although, being then about a quarter of a mile from shore, she was almost beyond hailing distance. His strenuous call was heard, however, and he saw the pilot on board wave his hand as a signal that help was needed. The keeper at once broke at the top of his speed for the station, three-quarters of a mile distant, mustered his crew, and run out the surf-boat, getting the aid of three Mexicans to haul the boat along the beach. Upon arriving abreast of the vessel, she was flying a signal of distress, although still afloat and riding to a single anchor. The surf-boat was at once launched and pulled out to her, and the life-saving men got on board. They found that she had but the one anchor to which she was riding, having lost the other at sea, but with the aid of this they kedged her through the breakers and stood by her until she got safely into port. The master and the pilot both testified that but for the aid of the life-saving crew the vessel would have been lost.

March 29.—At half past 2 o'clock in the morning the schooner S. B. Pomeroy, of and from Chicago, bound to Muskegon, Michigan, in ballast, with a crew of nine persons, attempted to enter the harbor at the latter place. A fresh breeze had been blowing, accompanied by a heavy sea. When the vessel was on the point of entering the harbor the wind failed, and the strong current of the river set the vessel against the end of the north pier, and from there she went ashore two hundred yards to the northward, and a third of a mile west of Station No. 8, Eleventh District. When the schooner struck the pier, two of her crew jumped onto it, and not knowing that the life-boat station was closed for the season went in search of it for aid. The night was very dark, and they did not find the station for some time. On arriving they informed the keeper of the disaster, and he at once hastened, with a heaving-line and stick, to the scene, but on arriving there he concluded that it would be impossible to do anything without a boat and crew. Leaving his heaving-stick with the two men, he set out to look up a boat's crew. While he was gone the two men contrived to get the heaving-line on board the schooner, and with it a line to the shore, by means of which the captain landed, with the remainder of his crew, in his vessel's yawl, just as the keeper and his men arrived in the surf-boat. The keeper and his volunteer crew ran a line to the vessel and made her fast to the pier, and on the following day ran a line from the schooner to a tug-boat, which took the vessel into the harbor.

March 30.—About noon the sloop Kate Cannon, of New York, hauled up near the beach of Eaton's Neck, Long Island Sound, to get a load of gravel, and ran aground about a hundred feet from shore, and half a mile west of Station No. 38, Third District, New York. There was a strong northwest wind at the time, and a bad short sea, which at once flew over the vessel, making a clean breach and causing her to leak so badly that her pumps would not free her. The sudden shifting of the wind, when she was anchored near the beach, drove her up hard and fast. The life-saving crew were on the beach abreast of the vessel when the disaster happened, and the sloop lay so high up that they found little difficulty in getting aboard of her by wading under her lee. They found four men on board, whom they assisted to bring the bedding and other things on shore, nothing else being possible of accomplishment at that time, as the wind was increasing and the sea getting more boisterous. Two of the men were taken to the station, where they were

sheltered and succored for the next two days. On the day after the stranding (March 31) the life-saving crew again boarded the sloop with the object of heaving her off, but the sea was flinging such bodies of water on board of her that nothing could be done. The day following (April 1) they boarded her once more, at 8 o'clock in the morning, and by 9 o'clock hove her off with the rising tide, leaving her free to sail for Northport for repairs.

March 30.—An unregistered fish stake boat, sloop-rigged, and without name, with two men on board, became unmanageable, lost her rudder, and was drifting out to sea, when finally, at about 6 o'clock in the evening, as night was falling, she came to an anchor and showed signals of distress in the channel off Kelly's Island in Lake Erie, seven miles from Station No. 9, Ninth District. There was a strong gale from the north and west at the time, a heavy sea, and the weather was freezing. The life-boat crew at once responded to the fish-boat's signals by launching and pulling out to the rescue, with the gale and sea in their teeth, which made for them the hardest kind of rowing. The cold increased in bitterness as the night fell and the air grew pitch dark. After severe exertions the life-boat crew reached the vicinity of the wreck, when they saw a lantern swinging on the beach at Kelly's Island, and found upon rowing in that some fishermen from the island had seen the sloop's signals and put out and brought her crew ashore. The efforts of the life-boat crew were therefore fruitless, and they rowed their seven miles back to the station, where they arrived safely after about five hours' hard pull through the gale and darkness.

April 1.—The crew of Station No. 30, Third District (Short Beach, Long Island), saw, at 10 o'clock in the morning, the sloop H. J. Bishop aground on Jones Inlet Bar, and reached her in the surf-boat just as she again got afloat, whereupon they boarded her, helped her crew to get her into the inlet, and righted a capsized boat she had in tow. One of them then accompanied the captain to the main-land in quest of a doctor to dress his hand, which had been hurt on board the vessel.

April 3.—The schooner Morris, of Muskegon, Michigan, unable to effect an entrance between the piers at that place, was materially aided by the lookout of Station No. 8, Eleventh District, who was on hand with his heaving-stick, and, throwing a line to her, got in her hawser and made it fast to the pier, when a tug came to her assistance. The same service was rendered later in the day by two of the station men to the schooner Willis Smith, of South Haven.

April 4.—At about 11 o'clock in the day the fishing-boat Lucy, of Alpena, Michigan, with a crew of two men, bound to Sugar Island, Lake Huron, with a full outfit of nets and provisions for the season's work, struck on a sunken rock, a quarter of a mile from Sugar Island, and sprung a dangerous leak. The wind was blowing violently from the northwest, and, as it was found impossible to beat the boat up to her place of destination, the crew squared away for the north end of Thunder Bay Island, about a quarter of a mile to the leeward, with the intention of beaching her. The leak gained on them fast, and before the island could be reached she sunk in four or five feet of water some distance out from the shore. Fortunately the life-saving station, a mile distant, on the southwest part of the island (No. 6, Tenth District), had just been opened for the season, and the crew seeing the boat acting strangely at once suspected something wrong. One of the surfmen was, therefore, dispatched along the beach to ascertain what was the matter, the boat being soon afterwards hidden from their view by an intervening point of land. When the boat went down, one of the fishermen

waded ashore and at once started towards the station for help. Meeting the surfman, he informed him of what had happened, and the two at once hastened to the station to alarm the rest of the crew. The surf-boat was quickly manned and the life-saving crew proceeded as fast as possible to the scene of the accident. Upon arriving alongside the sunken boat, it was at first proposed to transfer the fishing gear and provisions to the shore in the surf-boat, but finding after one or two trips that the latter was likely to be damaged by contact with the rocky bottom, the men sprang into the water, which, by the way, was icy cold, and carried the bulk of the articles ashore by hand. The sunken boat, after being thus lightened, was then hauled into shoaler water and bailed out. The men by this time were almost perished with the cold, having worked to and fro in the water for nearly two hours, one of the fishermen being in such condition that he could scarcely speak. When, therefore, the property was all safe the entire party repaired to the station for dry clothing and necessary refreshment. After the men had recovered sufficiently from the effects of their exposure in the water they returned to the scene of their labors, repaired the damage to the boat, restowed the nets and supplies, and then assisted the two men in reaching their fishing station on Sugar Island. The entire damage to the boat and outfit amounted to not more than ten dollars. The property, valued altogether at about eight hundred and fifty dollars, would have been lost but for the aid of the life-saving crew. The owner of the fish-boat, Mr. E. A. Davis, published the following card of thanks:

"On April 4, while my boat, with its cargo of nets and provisions, was near Sugar Island she struck a rock and sunk. The life-saving crew immediately came to our assistance and succeeded in saving both the boat and cargo. Under the circumstances, the strong gale that was at the time blowing and the freezing water, this action of the new crew, in the absence of the captain, speaks well for their efficiency, and deserves at least a public acknowledgment of our thanks.

"E. A. DAVIS."

Mr. Davis appears to have been mistaken in regard to the absence of the captain, or keeper. He was present.

April 4.—At 7 in the morning the schooner Levi Grant, of Muskegon, Michigan, arrived from that port at the pier at Evanston, Illinois, with a cargo of lumber and a crew of seven men, and commenced to unload. Between 10 and 11 a sudden squall from the north came up and a heavy gale and strong surf ensued. The keeper of Station No. 12, Eleventh District, Lake Michigan, ran to the pier and advised the captain of the schooner to haul out as soon as possible, meanwhile helping her crew to shift the lines on the pier. As the sea continued to rise and threatened to cast the vessel ashore, and her crew was not sufficiently strong to haul her out, the keeper made for the station and had the surf-boat launched. By noon the life-saving crew boarded the vessel and assisted in getting her out. The schooner was on the lee side of the pier, but the shoal water directly to leeward of her rendered it impracticable for them to swing her off clear from where she lay, it being necessary to warp her down to the pier end before she could be cast off with safety. The work was difficult and laborious and occupied both crews until 2 o'clock in the afternoon, when they succeeded in getting the schooner to the end of the pier. Canvas was then clapped on her, but in setting the after sails the strain brought to bear on the mooring bitts to which the after lines were belayed was so great that the bitts gave way, tearing

off a part of the deck with them, and she had barely time to hoist her jibs to avoid going ashore. This, however, was safely accomplished, and the life-saving crew then returned to the station. The vessel sustained no other damage than that mentioned, and afterwards returned when the gale abated, and delivered the remainder of her cargo.

April 5.—The crew of Station No. 5, Fifth District (Green Run Inlet, Maryland), rowed out five miles to the dismasted brig *Eugenia*, of Boston, which had lost her masts in a gale on March 28, and took back a dispatch from the captain to the owners, which they carried to the telegraph office at Chincoteague.

April 6.—At 5 o'clock in the morning, one of the patrol of Station No. 4, Fifth District (Ocean City, Maryland), saw a vessel dangerously near the beach, and warned her off by burning his red Coston light.

April 7.—The crew of Station No. 8, Ninth District (Cleveland, Ohio), went in a skiff with grapnels to one of the docks half a mile east of the station, and spent two hours and a half in dragging for the body of a man who had fallen or jumped into the water. The body was recovered by them and carried to an undertaker's, being identified as that of E. Butler, of Cleveland.

April 8.—At half past 5 in the morning the patrol from Station No. 4, Second District (Gurnet Point, Massachusetts), discovered a schooner ashore on Brown's Island Shoals, about half a mile south-southwest of the station. As the tide was running ebb, but little could be done for the relief of the vessel until the flood tide made in the forenoon, the life-saving crew busying themselves in the meanwhile getting their boat ready and coiling a stout hawser in it, ready for work. Upon going off to the vessel she was found to be the *Lizzie Poor*, of and from Belfast, Maine, for New York, with a cargo of potatoes, and carrying a crew of four men. The captain was not acquainted with the harbor and had anchored too near the shoal, so that when the ebb tide commenced the schooner swung aground hard and fast at 4 o'clock that morning. The keeper at once took charge and directed operations. The schooner had been riding to her small bower, and, having no kedge, it became necessary to under-run the cable, thirty fathoms of which were out, and weigh the anchor with the surf-boat, so that could be used. This done, the anchor was carried out into the channel to nearly the full scope of the hawser, and then getting the vessel upon an even keel by shifting her boat forward and sending several of the men out on the flying jib-boom to tip her, the rest manned the windlass. After heaving for some time the wind shifted so that her sails would draw if set. They were therefore quickly hoisted, every stitch she had bent, and with this aid to their efforts the schooner was safely floated off into the channel at a little before high water. The life-saving crew then assisted to make everything snug again, and got back to their station at about 3 in the afternoon. The captain of the schooner was very grateful to them, and freely acknowledged that but for their aid his vessel would probably have remained ashore a long time and possibly have become a total wreck, as the tides were decreasing and in case of stormy weather she would have fared badly.

April 9.—At about 3 o'clock in the afternoon, the keeper of Station No. 4, Second District, Massachusetts, watching through his glass a sail-boat named the *Mary*, passing to the eastward of the station, with three young men managing her, got a bad impression of the skill of her navigators, and as the boat passed beneath the bank, the station at this point (The Gurnet) being on a high elevation, he was about to start for a place where he could keep them in view, when he saw his

son running in that direction, evidently with the same object, and halted, knowing that they would be under proper surveillance. In a few minutes the young man came running into the house with the news that the boat was on the rocks, and the keeper hastened down the bank, preceded by one of his crew who had also been on the watch and seen the accident. The boat was found up on the rocks with one man still in her, and the others on shore. It appears that upon approaching the open bay, the sailing party found rougher water than was anticipated, and, in attempting to tack and run back into the bay put the helm up instead of down, thus throwing the head of the boat in on the rocks. The keeper with the aid of his crew got the boat off, and then loaning the party a pair of oars to pull back with and showing them how they might best avoid the strength of the current, started them on their way to Plymouth, thankful for their escape from serious mishap.

April 9.—At 1 o'clock in the day word reached the station at Sand Beach Harbor, Michigan (No. 1, Tenth District), that the Canadian fishing boat Lucy, of Bayfield, Ontario, carrying a crew of four men, had been capsized by the heavy sea that morning, about five miles from land, while in tow of the steamer Dispatch, seeking refuge at Sand Beach from the northeast storm then prevailing. One of the men was lost when the boat upset, the others being rescued by the steamer and taken to Sand Beach; the Lucy, at the time of the accident, having parted the tow line and gone adrift. Upon hearing the news some of the station crew at once set out along the beach in company with a party from the steamer in search of the lost boat, but they were unable to find it that day. It drove ashore, however, bottom up, the next day (10th) about seven miles south of the station, and arrangements were made to endeavor to recover it the first opportunity that offered. Accordingly, on the 11th, the life-saving crew proceeded down the beach with the necessary tackles, &c., and after righting the boat they got it in readiness for launching when the sea went down. The water was very shoal for a mile off shore, thus preventing the steamer from getting close enough to tow the boat off, so on the 12th the life-saving crew again visited the spot in their surfboat, and after hauling the Lucy afloat they towed it off to the steamer, which then took both boats in tow and returned to Sand Beach, where they arrived in the afternoon, and restored the boat to its owner.

April 9.—The crew of Station No. 16, Eleventh District (Sheboygan, Wisconsin), spent the forenoon in ineffectually grappling and dragging for the body of Henry Beaning, mate of the schooner Waleska, of Sheboygan, Wisconsin, who was knocked overboard by the main-boom at the entrance to Sheboygan harbor, in a heavy sea and rapid current, and never rose to the surface after his fall. The forenoon of April 13 was also spent in the search without avail.

April 10.—At about 5 o'clock in the morning, it was observed from Station No. 4, Second District, Massachusetts, the weather being cloudy at the time and the sea bad, that a schooner was lying at anchor south of the outermost shoal in a dangerous position. Signals were immediately set to call in the patrolmen, and in the mean time the remainder of the crew ran out the boat. In less than a quarter of an hour the patrolmen arrived, and, without waiting for breakfast, they launched and put out to the vessel, knowing that if she was not relieved from her dangerous position while the tide was at ebb, it would scarcely be possible to do anything for her. The sea was very rough and the task of boarding the schooner was one of great difficulty. She proved to be the Anna Shepard, of Fall River, bound from Hoboken, New Jersey, to Plymouth, Massachusetts, with a cargo of coal and a crew of five men,

one of whom was disabled. She was leaking badly. The captain having said that she behaved well in rough water, the keeper judged that he could take her out. Accordingly, all the sail she would bear was put upon her, and a buoy got ready for slipping the chain in case they could not heave up the anchor. They then hove ahead, but after heaving about half the scope, the anchor broke, losing both flukes. They worked the vessel clear, however, and took her to a safe anchorage in the "Cowyard," and within reach of pilots. The tide did not turn until the work was accomplished. After making her snug, the life-saving crew returned to the station. The captain of the schooner, in a letter to the collector, stated that his vessel must have foundered or stranded had it not been for the timely aid of the life-saving crew. He appears to have had no hope of saving her in the wild sea that prevailed at the time, and expected to have to beach her to avoid sinking at his anchors. The safety of the vessel was undoubtedly owing to the daring intervention of the life-saving crew.

April 10.—At daylight the lookout at Station No. 11, Eleventh District (Chicago, Illinois), discovered a small schooner sunk in the lake near the water-works crib, about a mile and a half distant from the station. The crew at once manned the surf-boat and went out to the wreck. It proved to be the *Espindola*, of Manitowoc, Wisconsin, bound from Grand Haven to South Chicago with a cargo of railroad ties, which had filled with water and capsized between 3 and 4 o'clock that morning; the accident being caused by the carelessness of her crew in not properly battening the hatches down, thus allowing the sea, which was very heavy, to pour into the vessel and sink her. Her crew of four persons had already been taken off by a tug lying close by when the accident occurred. After satisfying themselves that nothing could be done towards saving the vessel, the life-saving crew returned to their station in tow of a steam-tug which had arrived in the vicinity of the wreck at about the same time they did. Upon arrival they found the wrecked crew at the station, they having been landed there by the tug which rescued them. The sailors were made as comfortable as possible and taken care of for three days, or until able to leave for their homes, the schooner in the mean time being driven down the shore by the current and heavy sea, and fetching up against a pier some four or five miles below the harbor, where she quickly went to pieces.

April 11.—The crew of Station No. 6, Eighth District (Brazos Santiago, Texas), rendered service to the British steamship *Millan*, of Liverpool, by signaling for a steam lighter to go out to her and get her over the bar for her voyage.

April 12.—At half past 11 at night the north patrol from Station No. 1, Fourth District (Sandy Hook, New Jersey), discovered the lights of a vessel close in shore, about three-quarters of a mile north of the station. Hastening at once to the spot, he found it was a three-masted schooner aground on the bar. After making signal to the vessel that her position was known on shore, he hurried to the station and aroused his comrades, who turned out and proceeded as quickly as possible to the vessel's relief. It was a little after midnight (13th) when they got on board, the vessel proving to be the *Thomas W. H. White*, of and for New York from Virginia, with a cargo of pine wood and carrying a crew of six men. The captain was very thankful for the proffered assistance, and the men went at once to work with their surf-boat and carried out an anchor, and after nearly three hours of hard work they succeeded in hauling the vessel afloat, thus enabling her to proceed on her way and saving her owners from considerable loss.

April 12.—The schooner *Minnie*, of and from New York for Charleston, South Carolina, with a cargo of guano and empty barrels, stranded on Frying Pan Shoals, Cape Fear, North Carolina, at 3 o'clock in the morning, during the prevalence of a severe northeast rain storm. It was high water on the shoals when she struck and the sea was very rough. There were eight persons all told on board the schooner, including the captain's wife. The captain had mistaken his position by supposing he was to the southward of the Frying Pan Shoals lightship and did not discover his error until the vessel grounded in the breakers about five miles south of Smith's Island. The crew of Station No. 25, Sixth District (Smith's Island), discovered the vessel at daylight (5.30), and at once went off in the surf-boat to render assistance, reaching her at 7 o'clock. It was at first thought that by throwing cargo overboard the vessel might be saved. The men, therefore, bent their energies in that direction, keeping the pumps going to free the vessel of water. They soon found, however, that she had bilged and that all efforts to relieve her would be futile. Her abandonment was therefore reluctantly determined upon by the captain, who was part owner of the vessel. After consultation as to the safest way of reaching the island, it was decided to use the schooner's yawl in conjunction with the surf-boat. The former was therefore hoisted overboard and five men took passage in it, while the rest, including the captain's wife, went in the surf-boat, and after a hard and dangerous pull for nearly three hours all hands reached the shore in safety, the life-savers beaching their boat first and then assisting the other boat to land. The rescued party were sheltered at the station until the next day (13th), when the weather having moderated they were conducted to Smithville, Cape Fear River. A wrecking company was employed by the captain to save all the property possible, but beyond the recovery of the sails and rigging and some empty barrels nothing could be done, the vessel and the rest of the cargo becoming a total loss. This simple narrative of the rescue of the *Minnie* would be incomplete were the statement omitted that the entire affair, in the opinion of seafaring men in the vicinity, reflected much credit on the crew of the station, some of the bar pilots at Smithville marveling greatly that such a gallant feat as reaching the vessel through so rough a sea and boarding her in the midst of the breakers during the severity of the tempest could be accomplished.

April 12.—The schooner yacht *Marietta*, of Sabine Pass, Texas, with a crew of two men, parted her moorings at an early hour in the morning, during the prevalence of strong northeast winds, and drove ashore on the southwesterly side of Sabine Pass at a point about half a mile northwest of Station No. 1, Eighth District (Texas). As soon as the necessary jack-screws and other appliances could be obtained, the life-saving crew went to work and blocked the vessel up, and by evening of the following day (April 13) succeeded in heaving her afloat without damage, and took her back to her old moorings.

April 12.—The Canadian schooner *Nellie Theresa*, of Napanee, Ontario, bound from Oswego, New York, to Picton, Ontario, in ballast, and carrying a crew of six men, was overtaken by a strong westerly gale with violent snow-squalls, during the prevalence of which she lost her mainsail, and being thus unable to work to windward, was driven ashore midway between Stony Point and Big Sandy Creek, New York, at a point about five miles north of the life-saving station at the last named place (No. 1, Ninth District), and narrowly escaped total wreck, the people on board being rescued by the life-saving crew soon after she struck. The facts, as reported by the keeper of the station, were

as follows: At 9 o'clock in the morning, just after the clearing off of a heavy snow-squall, the surfman on lookout upon the roof of the station reported the schooner to the southward and westward about ten miles distant, heading to the northward, the wind at the time blowing hard from the west-northwest and creating a high sea. A close watch was at once kept upon the vessel's movements, it being observed, as she labored onward under her foresail and jibs, that she was making so much leeway as to render it impossible for her to weather Stony Point, several miles north of the station, the passing of which would enable her to make a safe harbor. At a quarter to 11 she was abreast of the station, and as the wind and sea were steadily increasing it became apparent that the schooner must go ashore. The beach apparatus was at once ordered out, and the life-saving crew sallied forth to follow her to the northward, the keeper before starting hoisting a preconcerted signal to parties in the vicinity owning teams to hasten on to his assistance. In order to keep the vessel in sight, the line of travel taken by the life-saving crew was along the beach, and it proved a dangerous and difficult one indeed, the men being continually in the swash of the surf, the water at times running waist deep as it rushed to the foot of the sand banks bordering the coast. Upon arriving at the Wind Gap, an outlet from Wood's Pond, a mile and a quarter north of the station, the keeper, profiting by the experience gained by the crew upon the occasion of the wreck of the Cortez, more than a year previous, in the same locality, made preparations for fording the Gap. The outlet was from three to four hundred feet wide, and the water about four feet deep, the waters of the lake rushing through with great violence and rendering the passage one of considerable risk. Three of the crew boldly set out, line in hand, for the purpose of hauling the cart across. After a gallant struggle the brave little band reached the opposite bank. The other end of the line being hitched to the cart, the task of drawing it over was at once commenced, the advance party on the north bank hauling while those with the cart pushed and guided it through the turbulent waters. In this manner the apparatus was successfully drawn to the north bank of the Gap, and there, before proceeding onward, the men made a short halt to wring out their clothing and free their boots of water. Upon resuming their way, and arriving at a place called the Sugar Loaf, some distance beyond the Gap, the party were overtaken by a couple of teams, which had hurried to them in answer to the keeper's signal. One of the teams was at once hitched to the apparatus cart and the other was dispatched back to the station in charge of one of the surfmen (No. 1) for the surf-boat. With the aid of the horses the progress of the party was now more rapid, and the distance between them and the schooner perceptibly lessened, the latter sagging shoreward with every heave of the sea as she drove to the north. At a little before noon she was within half a mile of the beach and almost in the breakers. At that time she was seen to round to, with both anchors down. The life-saving crew arrived abreast of her with the beach apparatus at 12 o'clock, and half an hour later the surf-boat reached the ground, the horses attached to the latter having been driven at their utmost speed. The schooner was pitching and rolling fearfully under the influence of the high sea tumbling in from the westward, and it was not long before the watchers on the beach noticed that she was slowly dragging in towards the breakers in a northeasterly direction, the men keeping abreast of her ready to unload the cart as soon as the schooner should fetch up. At 4 o'clock the best-bower cable parted, and the schooner had nothing to hold her but the port anchor, she being

then so close in that her heel touched the bottom at every heave of the sea. In this state of affairs the best course was to let the vessel drive up while she remained tight. The remaining anchor was therefore slipped, and in a few moments the schooner was hard and fast, about three hundred and fifty feet from the beach. The time for action had now arrived and in a short time the life-saving crew had arranged their apparatus, the first shot carrying the line between the schooner's masts. The whip-line and hawser speedily followed, and when the latter was sufficiently tautened, one of the surfmen was sent off in the breeches-buoy to superintend operations from the vessel. Each man was at his post, and the work of rescue commenced. Eight trips were made by the breeches-buoy and all hands with their baggage were soon safely ashore; the gear being reloaded on the cart and ready for the homeward march by 5 o'clock. The journey back in the chill twilight of the evening, with the gale still raging, was attended with more discomfort and risk than had been encountered in the morning, the waters of the Wind Gap having swollen to such a height as to completely submerge the heavily laden apparatus-cart when drawn across, and the men were doubtless glad when the shelter of the station was reached at 7 o'clock and they were enabled to remove the wet garments in which they had toiled for eight long hours. They had the satisfaction, however, of knowing that they had earned a good record and that by their instrumentality six of their fellow-beings had been rescued from the perils of the storm. The schooner was damaged to the extent of about one-third of her value, but the owners succeeded, with the aid of tugs, in floating her off fifteen days after the accident, when she was taken to Kingston, Ontario, for repairs.

April 12.—At half past 6 in the morning the crew of Station No. 17, Eleventh District (Two Rivers, Wisconsin), sighted a schooner coming down the coast from the northward with a signal of distress flying. The surf-boat was launched and the life-saving crew put off as quickly as possible to her assistance, boarding her when yet about three miles north of the harbor. She was the R. H. Becker, of and for Milwaukee from Newport, Door County, Wisconsin, with a cargo of cedar posts, she having been hauled off the beach at the latter place but a few days before, after lying aground all winter. She was leaking badly and had three feet of water in the hold, her crew of six men being pretty well exhausted from continuous pumping during the preceding twenty hours in trying to keep her free. The keeper's offer of assistance was very gladly accepted, the men going at once to the pumps. At 8 o'clock, when off Two Rivers, the tug M. A. Gagnon came out and took the schooner in tow for Manitowoc, some miles below, where she arrived an hour later. Finding the dry-dock occupied and that the vessel would have to await her turn before she could be repaired, they towed her up the river onto the flats where she could not sink, as the leak was gaining upon them all the time. The station crew remained on board until afternoon, rendering all the assistance needed, and then returned home to Two Rivers in company with the tug Gagnon, which also belonged there, the captain of the Becker expressing, when they shoved off, his hearty thanks for the great assistance they had been to him in getting his vessel safely into port.

April 13.—At 8 o'clock in the morning the schooner Joseph M. Enright, of Port Huron, Michigan, bound up Lake Huron from Bay City, in ballast, and carrying a crew of five persons all told, ran aground on Ottawa Point, Lake Huron, about a mile and three-quarters distant from Station No. 4, Tenth District. The accident was quickly discov-

ered by the life-saving crew, who went off at once in their boat to the schooner's relief. The captain had already made an unsuccessful attempt to get his vessel off by running out a kedge, his boat being too small to carry a larger anchor. The station crew went immediately to work and carried out the best bower anchor to the full scope of its cable, and in a couple of hours they had succeeded in floating the schooner off without damage, and she was enabled to proceed on her way.

April 15.—At 9 in the morning the crew of the schooner O. P. Binns, of New York, six in number, arrived at Station No. 23, Sixth District (Hatteras, North Carolina), and reported the sinking of their vessel during the previous night (14th), while lying at anchor inside Hatteras Inlet, at a point about five miles distant from the station. Fortunately the weather was fine and the men managed to remain on the wreck until rescued soon after daylight by a pilot named Willis who had gone out to pilot the schooner to sea, she having put in for a harbor while on a voyage from Georgetown, South Carolina, to Philadelphia, with a cargo of shingles. The place where the vessel sunk was hidden from the beach by a clump of woods, which accounts for her not being seen by the station patrol. The men were hospitably sheltered and subsisted at the station for three days, or until able to obtain transportation from the beach, their vessel having become a total wreck.

April 16.—A little before midnight the schooner Cabot, of Boston, bound from Gardiner, Maine, to New York, with a cargo of lumber and a crew of six men, stranded on Chatham Bar, two miles south of Station No. 13, Second District, Massachusetts. The patrolman of the station saw the vessel heading for the bar and immediately burned a red Coston light to warn her of the danger, but no heed was paid to the signal and before the patrol reached the station the vessel had gone with the full tide high up on the bar. The surf-boat was launched as soon as the report was received, and reached the scene of disaster half an hour after midnight (April 17). Nothing could be done to float the schooner until the next tide, and as it was evident that she would have to be lightened to be got off then, the life-saving crew went to work soon after daylight to heave overboard her deck load, which was picked up by boatmen and taken care of; and then carried out a small anchor and hawser in the schooner's yawl-boat, towing it with the surf-boat. The anchor proved insufficient to work the vessel off in the heavy sea and tide, and she was carried around so that the mainsail, which had been set to assist in driving her over the bar, shifted and carried away the main-boom. She was also set further up the bar, and all attempts to get her off at that tide were ineffectual. At low water another and larger anchor was carried out by the surf-boat, and fearing that even this might not prove sufficient, the captain of the Cabot procured still another anchor and cable and a boat's crew to assist in the next attempt. When the tide was at the full again she was got off by a strenuous effort, the life-saving crew having been at work on her incessantly for twenty-four hours.

April 17.—The mid-watch patrol northward to the point of Sandy Hook, from Station No. 1, Fourth District, coast of New Jersey, had just completed the second tour of his beat and reached the station at half-past 3 in the morning, when he heard cries of distress away in the offing. He scanned the expanse of water in front of the station but the darkness was so intense that nothing to indicate the cause of the cries could be seen. At that moment he was joined by his comrade from the south beat and both men listened intently until the sound was again wafted over the water. All hands were at once called, and the keeper ordered the boat out. In a few moments the boat was speeding on its

errand of mercy, the keeper at the steering oar casting anxious glances ahead and each time the cry was heard sending back an answering shout that help was coming. Pulling in the direction of the sound for about fifteen minutes, they came upon a capsized sail-boat with four men clinging to it. The waves ran high, so that in the darkness it became necessary to approach with caution in order to avoid collision with the half-submerged boat. As quickly as possible the four men were lifted into the surf-boat, and upon finding themselves safe they broke out into sobs of joy, one of them saying he could not have held on five minutes longer. It appeared that John and Thomas Davis, father and son, and J. Will and George Stulz, residents of Brooklyn, New York, had left home the previous evening for a sail down the harbor, and that while in the lower bay the boat upset, throwing its occupants into the water. The accident occurred at a little before 3 o'clock and the boat was fast drifting seaward with the outgoing tide when the cries for help were heard by the patrol, the men having been in the water fully an hour when picked up by the life-saving crew, about a mile northeast of the station. They had had several narrow escapes from drowning by being washed off the boat by the seas and at the time of their rescue were completely exhausted. As quickly as possible they were taken to the station, where dry clothing, stimulants, and everything necessary for their complete restoration and comfort were furnished by their rescuers and in a few hours they were all right and anxious to return home, the keeper obtaining for them free passage on the Sandy Hook boat to New York.

April 18.—The schooner Frank Norton, of Rockland, Maine, bound from Vinal Haven, Maine, to Philadelphia, with a cargo of granite, and a crew of five men, endeavored to beat down the channel with a light wind and strong current, and was carried by the tide onto the rocks, at 5 o'clock in the afternoon, about eight miles northeasterly from Station No. 5, First District (White Head Island). An intervening island hid her from view at the station, and she was not discovered until an hour after her stranding, when the patrol reached the eastern end of the island, where she was visible. The alarm was given, and the surf-boat went to her assistance. Her crew had already run out a kedge and line, and the life-saving crew assisted in making sail on her and heaving her off the rocks, which was accomplished at 8.30 p. m. They then ran her into the channel, and after trying her pumps and finding her dry, and apparently undamaged, they returned to the station, which they reached by 10 o'clock.

April 19.—At daylight the patrol from Station No. 4, Eighth District (Pass Cavallo, Texas), discovered the schooner-rigged pilot-boat Josephine, of Indianola, Texas, stranded on the inner side of Matagorda Island, at a point about one mile northeast of the station, the vessel having parted her cable and driven aground during the night. There was but one man on board of her, and the life-saving crew at once took charge and succeeded in heaving the schooner afloat the same day without damage.

April 19.—One of the night patrols of Station No. 5, Tenth District (Sturgeon Point, Michigan), saw a vessel standing dangerously close to a reef, and warned her off by burning a red Coston light.

April 19.—At 5 o'clock in the afternoon the keeper of Station No. 12, Eleventh District (Grosse Point, Evanston, Illinois), while in the vicinity of his residence, a short distance south of the station, saw a man named Goodspeed put off from the shore in a small boat for a row upon Lake Michigan. The man had not gone far when the keeper noticed that he was bailing water out of the boat as though it was leaking badly, and

soon afterwards the boat was put before the sea and gradually edged in towards the land. When on the bar, about a hundred and fifty feet from the beach, the boat suddenly upset, throwing the man into the water. The keeper hurried to the spot at once, and seeing the man, who could scarcely touch bottom, engaged in an ineffectual struggle to drag his boat to land, he shouted to him to leave it and wade ashore, as the boat could be taken care of afterwards. The man did so, and as soon as he was safe the keeper hurried him to the house near by and furnished him with dry clothing. After seeing Mr. Goodspeed comfortable, the keeper set out in quest of the boat. It was still some distance out in the surf drifting to the southward, so without waiting to obtain help from his crew he waded out and recovered the boat before it got beyond reach, and after hauling it up where it would be safe, got the water out of it and put it in good order again for its owner.

April 20.—The schooner *Cocheco*, of New York, bound from Saint George, Maine, with stone, for Jacksonville, Florida, had just been loaded in Mill Cove, Seal Harbor, Maine, and was in the hands of a pilot to be taken down a narrow creek with a crooked channel, when, by an error of judgment on his part, she was run upon the flats, where he left her. She remained there until near midnight, when a gale arose and the vessel floated, dragged her anchors, and was driven farther up the creek onto the flats, where she lay helplessly aground, about one mile and three-quarters northwest of Station No. 5, First District (White Head Island, Maine), and forty yards from shore. Her position was such that Rackliff's Island hid her from view at the station. At 9 o'clock the next morning (April 20) the patrolman of the station climbed the flag-staff to reconnoiter and discovered her. On reporting he was sent to her in a small boat to see who she was and what she required. He returned with the request of her captain for help and the life-saving crew at once went out to her. They made sail on her, ran out a line and kedge, and hove her off the flats into the channel. They then beat her out of the creek into harbor and left her. The crew consisted of seven men; and the wives of the captain and mate, and the captain's little son were on board as passengers.

April 20.—The schooner *Mary E. Amsden*, of Calais, Maine, carrying a crew of eight men, bound from Brunswick, Georgia, to Fall River, Massachusetts, with a cargo of lumber, encountered strong southerly gales, with thick, stormy weather in Long Island Sound, on the 19th of April, and stranded on the south side of Fisher's Island at 6 o'clock in the evening, about six miles west by south of Station No. 3, Third District (Watch Hill, Rhode Island), the place where she struck being hidden from view at the station, even in clear weather, by the intervening land. At 9 o'clock the same night the wind shifted to the northwest and the schooner floated off, but in such a leaky and unmanageable condition that she was compelled to anchor. The next day (20th), the weather having cleared, the schooner was discovered from the station at anchor off the island, but as she showed no signal of distress, the fact that she was disabled was not known until late in the afternoon (4 o'clock), when a New London wrecking tug was observed to approach and take her in tow. As the two vessels headed in for Watch Hill Reef, in making for Fisher's Island Sound, it was noticed at the station with the aid of the glass that the schooner yawed very wildly, as though her rudder was disabled, and upon nearer approach they saw she was water-logged. Indeed, she rolled and pitched so badly in the heavy sea that the tow-line parted once and the tug had much difficulty in managing her. Upon seeing this, the life-saving crew put off as quickly as possible, fearing she

might drift onto the rocks off the east end of Fisher's Island and endanger the lives of her crew. The captain was very thankful for their proffered assistance and requested them to stay by him until the safety of the vessel was assured. This they did and remained on board until smooth water was reached, well to the westward of Napatree Point, on the way to New London for repairs, the life-saving crew leaving when all danger was passed and the captain said there was no need of their remaining longer, and getting back to their station at 9 o'clock that night.

April 20.—At 2 o'clock in the afternoon, as Francis A. White, of Amityville, Long Island, New York, was cruising about in Gilgo Inlet, coast of Long Island, in a small cat-rigged boat, the boat was struck by a sudden squall and capsized, Mr. White being thrown into the water. He clung to the bottom of the boat and with an oar endeavored to reach the beach, but the ebb tide was too strong for him and the boat was carried seaward into the breakers on the bar. He was repeatedly washed off, and it was only by the greatest exertion each time that he managed to get back to the boat, the low temperature of the water benumbing him almost completely. By good fortune the boat was caught in an eddy of the current and carried into close proximity to an old wreck on the bar. Realizing the danger of being swept out to sea, he abandoned the boat and by a bold dash succeeded in reaching the wreck, where he ensconced himself upon one of the projecting timbers and anxiously watched for the succor which he thought would soon arrive. It seems in the meantime a boy named Robbins, whom Mr. White had landed on the west point of Oak Island a few minutes before the accident, upon discovering his friend's peril, had hurried at the top of his speed to the nearest life-saving station on the island (No. 27, Third District), about two and a quarter miles distant, and given the alarm. Fortunately there was a spare boat belonging to the station kept near the inlet for just such emergencies as this, and the delay of dragging the surf-boat at the station over the long waste of yielding sand was avoided. The crew, in their eagerness to save the man, did not wait to put on their cork life-belts, but started on a keen run towards the inlet, and in a very short time the spare boat was in the water and they were off to the rescue. Nothing could be seen of either the man or his boat until the neighborhood of the bar was reached, and then he was descried clinging to the wreck, having clambered to his point of vantage just as the life-saving crew approached. The sea was breaking in all directions about him, so that the utmost caution was necessary on the part of the keeper to prevent the swamping of his boat. By skillful management, however, the man was rescued, and then, after the capsized boat had been recovered, he was conducted to the station, where his needs were properly attended to. By the next day he was able to leave for his home in his own boat, which the crew had put in proper order again. Mr. White published the following letter in the local paper as an expression of his gratitude to the life-saving crew for his deliverance:

“AMITYVILLE, LONG ISLAND, *April 22, 1882.*

“EDITOR SIGNAL: I would like to express through your valuable columns my thanks to the men of Life-saving Station No. 27 for the prompt manner in which they responded to the call of one in great distress, I having been in mortal peril, my boat having upset in Gilgo Inlet, with a very strong tide running out, when they arrived and through the mercy of God saved me from death, which faced me in two different ways—that of being drowned, or frozen on the wreck of the Josie T. Marshall. My clothing was wet through and I was rapidly be-

coming chilled. It was a noble display of self-sacrifice to see those brave men row out through the terrible sea to rescue me, or perish themselves in the attempt. By publishing the above you will confer upon them praise that is well merited.

"Yours, truly,

"FRANCIS A. WHITE."

April 20.—At half past 8 in the morning, the crew of Station No. 8, Ninth District (Cleveland, Ohio), were requested by one of the contractors for the construction of the breakwater off the harbor to assist in the recovery of a crib which had been displaced during the storm of the night previous and driven into shoal water, where it grounded about half a mile from its former position. The life-saving crew responded promptly to the call and put off at once with the boat in tow of a tug. The task of running the steamer's lines to the crib was both difficult and dangerous, on account of the heavy seas, which swept the structure completely, and it was only after two hours and a half of downright hard work that they succeeded in moving the crib back and placing it securely in position again.

April 20.—At half past 6 in the evening, after the crew of Station No. 8, Ninth District, had assisted in the recovery of the crib belonging to the breakwater in course of construction off the harbor of Cleveland, Ohio, as recorded above, the surfman on lookout reported a small row-boat capsized at the entrance of the harbor, and that its occupant, a boy named James Law, was struggling in the water. The life-saving crew at once launched their surf-boat and pulled down to the spot, but in the mean time a seventeen-year-old son of the keeper, who had witnessed the accident from the end of the pier, jumped into a boat lying near and rescued young Law just as the station boat arrived. The boy was at once landed and sent home, and his boat righted and bailed out and cared for at the station until called for by its owner.

April 20.—At twenty minutes past 1 in the afternoon, just after the clearing off of a snow-storm on Lake Huron, the lookout at Station No. 8, Tenth District (Hammond's Bay, Michigan), reported a vessel ashore eight or nine miles northwest of the station. The crew were instantly on the alert, and five minutes later the surf-boat was launched and off to the vessel's assistance. The pull, dead to windward, was a hard and tedious one, it being 6 in the evening when the life-saving crew arrived alongside, four hours and a half after leaving the station. The vessel was the steamer Alanson Sumner, of Oswego, New York, carrying a crew of eleven men, bound from Oswego to Duncan City, Michigan, with the barge-schooner Banner, of Buffalo, in tow. The vessel was aground on a shoal spot about half a mile from shore, where she struck the previous afternoon (19th), at 4 o'clock, during very thick weather; the barge, by good luck, sheering off in time to avoid a similar accident. It appeared that, after fruitless efforts to float his vessel off, the captain of the steamer had dispatched two men north to Cheboygan for assistance, and they had not returned when the station crew arrived. Upon learning the great distance traveled by the life-saving crew in coming to his aid, the captain insisted upon their partaking of a good warm supper before commencing work. When supper was over, the men, at the captain's request, manned their boat again and sounded in all directions to find the deepest water for getting the steamer off, and this done they returned on board and helped get everything in readiness for the expected tug. The latter, the James W. Bennett, arrived at 10 o'clock at night, the life-saving crew meeting her and piloting her as near as

she could safely approach the stranded vessel. The Sumner's hawser was then run to the Bennett, and both vessels putting on a full head of steam, in half an hour the former was once more afloat, although in a damaged condition. After seeing the steamer and her tow safely on their way, the life-saving crew returned to the station, arriving there at 1 o'clock in the morning (April 21). The keeper reports that the captain of the Sumner expressed genuine surprise that the life-saving crew should undertake so long a journey from their station, and was very grateful for the efficient service rendered by them.

April 21.—The British schooner Janet S., of and from St. John, New Brunswick, at Narragansett Pier, Rhode Island, with a cargo of lumber, after discharging the latter, was hauling out from the south pier at that place, when she was driven onto the rocks by the heavy sea then running and placed in imminent danger of destruction. The vessel carried a crew of five men. It was 10 o'clock in the forenoon when the accident occurred, and the crew of Station No. 1, Third District, half a mile distant, at once hastened to the spot and made strenuous efforts to float the schooner off. Their labors were of no avail, however, for while heaving on the windlass the strain on the latter was so great when the seas struck the vessel that it broke adrift and knocked Surfman Benjamin Clarke senseless on the deck, seriously injuring him, while another, George Grinnell, received some bad bruises. A third man, named George Browning, also of the station, was subsequently thrown overboard while hauling upon one of the schooner's lines, and narrowly escaped drowning, it being only with the greatest difficulty that his comrades succeeded in rescuing him. With the windlass disabled, the operations for floating the vessel were brought to a standstill, the station crew busying themselves the rest of the day, at the captain's request, in stripping her of sails and rigging, in case she should become a wreck. On the next day (22d), the sea having gone down, a tug-boat arrived, and succeeded in hauling the schooner out of danger, and towed her to Providence for repairs. But for the breaking of the windlass the vessel would have been floated off by the life-saving crew without the tug's assistance. A part of the schooner's crew received shelter at the station the night the vessel lay upon the rocks.

April 21.—At 5 o'clock in the evening a report reached Station No. 6, Ninth District (Presque Isle, Erie, Pennsylvania), that there was a barge in distress off the coast, some twenty miles to the eastward of Erie. The life-saving crew at once started out in tow of the tug Erie, and upon reaching the vessel supposed to be in distress, at 8 o'clock, found her to be the barge T. H. Orton, bound from Buffalo, New York, to Saginaw, Michigan, safely anchored about two miles from shore and in need of no assistance, the report of her being in distress being a false one. The life-saving crew therefore returned to Erie, arriving at their station at midnight, having made the round trip there and back in seven hours.

April 21.—Three of the crew of Station No. 5, Eleventh District (Manistee, Michigan), were occupied on the beach to the south, and four on the beach to the north, in picking up out of the surf a lot of hard wood, some vessel unknown having lost her deck load.

April 22.—The schooner Forester, of Ellsworth, Maine, bound from that port to Boston, with a crew of three men and general cargo, at the entrance of Seal Harbor, near Burnt Island Point, one mile northeast of Station No. 5, First District, Maine, was run into by another schooner, which attempted to cross her bows while she was in stays, and had her flying jib-boom and main-boom carried away. The other

vessel was not materially damaged, and reached her anchorage in the harbor. The keeper of the station discovered the damaged vessel at anchor, and went out to her with two men. Finding upon boarding her that she needed assistance, he signaled for the rest of his crew. Upon their arrival on board they went to work and repaired the Forester's damages to the best of their ability, and then got her under way, under reefed sails, and beat her up into Seal Harbor to a snug berth. She afterwards proceeded to her destination.

April 22.—The cedar woods at Spermaceti Cove, New Jersey, caught fire in the morning from the sparks of a passing locomotive, and the fire was spreading very fast, having already burned a considerable space, when it was encountered by two of the patrolmen of Station No. 2, Fourth District, and extinguished by their efforts.

April 22.—The three-masted schooner Maggie Ellen, of Portland, Maine, bound from Kennebec River to Atlantic City, New Jersey, with a cargo of ice, and carrying a crew of six men, stranded at 6 o'clock in the evening on Brigantine Shoals, about three miles from the beach, at a point five miles east-northeast of Station No. 27, Fourth District, situated at Absecom Inlet, Atlantic City, New Jersey. The grounding of the vessel was observed by the lookout at No. 27, and also at Station No. 25, some miles to the north (there being no station numbered 26), and both crews put off to render assistance. Before either boat could reach her, however, a passing tug-boat, seeing the schooner's danger, steamed alongside, and in a short time succeeded in hauling her afloat without apparent damage. Upon finding they could be of no assistance, the crew of No. 25 returned ashore, while the men of No. 27 accompanied the schooner until she was abreast of the station and safely anchored for the night, the captain requesting the keeper, when the latter left with his crew, to send a pilot on board. This was done, and the schooner was piloted safely into the harbor the next morning.

April 22.—At 11 o'clock at night, one of the patrolmen of Station No. 9, Fifth District (Hog Island, Virginia), saw a steamer running too near the beach, and immediately let his red Coston light blaze. She struck, however, on the outer bar, but fortunately it was flood tide, and she floated off before the keeper could launch the surf-boat.

April 22.—Two days after the crew of Station No. 8, Tenth District (Hammond's Bay, Lake Huron), aided in relieving the steamer Alanson Sumner, they rendered very valuable assistance to the schooner Robert Emmet, of Cheboygan, Michigan. The schooner was bound from Cheboygan to Detour, on the upper peninsula, in ballast, and carried a crew of three men. After leaving port she encountered strong adverse winds and was compelled to seek a harbor in the vicinity of Hammond's Bay. She was sighted by the station patrol soon after daylight, when about six miles from the land, the vessel being close-hauled on the port tack and standing in the direction of the station. The weather looked threatening and the surfmen off duty were at once called and ordered to hold themselves in readiness in case of accident to the vessel, the course she was steering leading to the presumption that she was endeavoring to gain the shelter of the wharf in front of the station, where there was a good lee. The schooner sagged so far to leeward, however, that it was soon evident she could not fetch the desired anchorage, and before long she was observed to bear up for the entrance of Ocqueoc River, about two miles to the westward of the station. The river affords a good harbor to vessels of light draught, but the outlet is subject to frequent and sudden changes, and at the date of this report the channel had shifted some fifteen rods to the eastward of where the best water was found last

year. While the station crew were taking a hasty breakfast in anticipation of a call, the lookout reported the schooner as heading for the old channel, where she would certainly go ashore. The surf-boat was instantly ordered out, and the life-saving crew made strenuous efforts to head the vessel off and direct her into the new channel. It was too late, however, for before they arrived the schooner struck hard and fast, broadside to the beach, the shock she received springing her foremast. It was decided to take immediate steps for hauling the vessel off. To do this, it became necessary to approach her on the weather side, an undertaking of much risk on account of the heavy sea. By skillful maneuvering, the life-saving crew succeeded in carrying out an anchor, and after four hours of downright hard work they had the satisfaction of getting the schooner once more afloat and safely at anchor; after which they returned to the station for dinner. Upon going back to the schooner they found that one of her crew, having become frightened, had deserted, leaving but two men on board. As the wind had moderated and the captain was anxious to proceed on his voyage, the life-saving crew assisted in securing the foremast and then got the schooner under way and saw her well clear of the coast, the captain expressing much thankfulness, when they left, for their valuable help in saving his vessel.

April 23.—The sloop John F. Armstrong, of and from Great Egg Harbor, New Jersey, for Chincoteague, Virginia, in ballast, and carrying a crew of two men, encountered heavy easterly weather on the way down the coast, and was compelled to run ashore to prevent foundering. The vessel was beached nearly abreast of Station No. 4, Fifth District (Ocean City, Maryland), soon after 7 in the morning. The life-saving crew had observed the vessel standing in for the land and hurried down to the beach with their apparatus to rescue the people. The surf was quite rough, and the vessel came well up, so that there was little difficulty in getting the two men ashore with the aid of lines. When this was done a line was attached to the bobstay, and then as the tide rose and the vessel lifted on the seas she was hove nearly high and dry beyond reach of the surf. The two men were conducted to the station, where they received shelter. The sloop was floated a few days afterwards with but slight damage.

April 24.—The schooner Mercy T. Trundy, of Calais, Maine, bound from Philadelphia, Pennsylvania, to Wilmington, North Carolina, with a cargo of railroad iron, and carrying a crew of six men, ran ashore on Frying Pan Shoals, Cape Fear, North Carolina, at half past 4 in the morning, during the prevalence of thick weather, the captain having mistaken his position in supposing he was outside the Frying Pan Shoals light-ship, as in the case of the Minnie, wrecked a few days previous on the same shoals. The schooner was discovered soon after daylight by the patrol from Station No. 25, Sixth District, eight miles distant (Smith's Island), and as quickly as possible the life-saving crew put off to her. With a favoring wind from the north they made good progress, and when about half-way out to the schooner spoke the tug Italian, bound in, which reported passing the wreck, and that the crew were still on board with a signal of distress flying. The vessel was reached at 8 o'clock. She lay, as the keeper described it in his report, in a bed of breakers, with the seas dashing completely over her, and there was no one on board. It was evident that the crew had either been washed away, or that they had sought refuge in their boat, the absence of the latter from its davits creating this presumption. The schooner had commenced breaking up, and as nothing could be done in the way of salvage, and they had about all they could do to prevent

their boat from swamping in the heavy sea, it was resolved to turn back and keep a sharp lookout for the missing crew. Upon heading about, the wind was full in their teeth, and after pulling steadily for three hours, during which time they made but four miles headway, the wrecking schooner Charlotte Ann Pigott, of Wilmington, was fallen in with on her way to the wreck. Anxious for the safety of the wrecked crew, the life-savers boarded the Pigott and accompanied her out, believing such a course would afford them a better chance of finding the missing boat. This action was fully justified, for upon arriving the second time in the vicinity of the stranded vessel, their search was rewarded by the discovery of the yawl in tow of pilot-boat No. 6, which was standing in, on the wind, towards Cape Fear. They at once shoved off from the Pigott, and upon reaching the pilot-boat found the wrecked crew safe on board of her, the yawl having been picked up some miles to leeward. Upon comparing notes it was learned that the sailors must have abandoned their vessel but a few minutes before the station crew arrived, the roughness of the sea, no doubt, preventing their seeing one another. They were at once transferred to the surf-boat and taken ashore to the station to await an opportunity to save their effects, the men having brought nothing but what they stood in. An unsuccessful attempt was made the following day (25th) to board the vessel, but the sea was still too rough and breaking clean over her. The weather moderated, however, during the following night, and on the 26th the life-saving crew again went out, hoping to save something. The vessel had then become a complete wreck, and everything belonging to the crew was swept away. Under these circumstances there was no need of the wrecked crew remaining longer at the station, and they were therefore conducted the same day in the surf-boat to Smithville, several miles distant, whence they could take passage to their homes.

April 25.—At 8 o'clock in the morning, Mr. Lemuel Bradford, 2d, of Plymouth, while off Manomet Point, in a dory, coot shooting, lost his balance in firing at a flock of birds, the boat being unsteady beneath him owing to a short and choppy sea, and fell overboard. In his desperate efforts to climb back into the dory, he only succeeded in nearly filling it with water, and his plight would have been still more serious had not the keeper of Station No. 5, Second District (Massachusetts), happened to be in a boat about two hundred yards away, and pulled up and dragged him from the water. He was taken to the station, where he remained during the day, and was furnished with a suit of the keeper's clothes while his own were dried.

April 25.—One of the patrolmen of Station No. 10, Second District (Cahoon's Hollow, Massachusetts), saw a steamer running too near the beach for safety, and caused her to change her course by burning a red Coston light.

April 25.—At half past 7 in the morning the lookout at Station No. 1, Ninth District (Big Sandy Creek, Lake Ontario, New York), reported a wrecking tug, which had been expected for some days, standing in towards the Canadian schooner Nellie Theresa, stranded some miles north of the station, the crew of which had been rescued by the life-saving crew on April 12, as already shown in this record. The keeper ordered the boat out and all hands proceeded at once to the spot to assist in getting the vessel off, the tug proving to be the McArthur, of Kingston, Ontario, chartered for that purpose by the owners. Operations were commenced as soon as the station crew arrived, and the work was prosecuted without intermission all that day and until 2 o'clock the next morning (26th), when the tug hauled off and the crew returned

to their station, having eaten nothing since leaving the house the previous morning. After taking refreshment and resting a few hours, the life-saving crew again repaired to the scene of operations, finding upon arrival that the tug herself was hard aground in the channel cut the previous day abreast of the schooner. They at once went on board to help heave the tug off, the effort being successful at about 3 in the afternoon, when work on the schooner was resumed. The latter, however, was so deeply imbedded in the sand that all efforts to move her failed. It was therefore decided to telegraph to Kingston for the assistance of another tug, and, as darkness had now set in, operations were suspended, the crew returning to the station for the night. Early the next day (27th), while the life-saving crew were assisting another vessel (the schooner Fiat) in over Sandy Creek bar, the aid telegraphed for arrived, and by the combined power of both tugs the schooner was floated safely off and taken to Kingston for repairs, the life-saving crew arriving just before she left, although too late to be of further assistance.

April 25.—At 10 o'clock in the morning, the scow Nella, of Detroit, attempted to get into the harbor at Muskegon, Michigan, but was carried by the strong wind and current to leeward of the north pier, where Surfman Heath, of Station No. 8, Eleventh District (Muskegon), made a fine cast with his heaving-stick and line, reaching her at a distance of ninety feet, got in her hawser and made it fast, and thus prevented further trouble.

April 26.—At 4 o'clock in the morning, one of the patrolmen of Station No. 13, Second District (Chatham, Massachusetts), saw a large vessel heading for the beach, and at once warned her of her danger by burning his red Coston light, causing her to tack and stand off shore.

April 26.—The schooner Spy, of Milwaukee, Wisconsin, was carried past the piers at Muskegon, Michigan, in attempting to make the harbor, when Surfman Partridge, of Station No. 8, Eleventh District (Muskegon), threw a line to her with his heaving-stick, got her hawser, and fastened her to the pier until a tug came to her assistance.

April 27.—The schooner Mary C., of New Castle, Delaware, from James River, Virginia, for Sinepuxent Bay, Maryland, with a cargo of oysters, and carrying a crew of five men, while proceeding up the coast to the northward of the Chesapeake, struck on Great Machipongo Inlet Bar, about a mile and three-quarters south-southwest of Station No. 9, Fifth District (Hog Island, Virginia), a little after 6 o'clock in the evening, an easterly wind and high sea prevailing at the time. The accident was quickly discovered by the crew of the station, who immediately put off in their boat, arriving alongside the schooner at 7 o'clock. The keeper at once took charge, and under his direction an anchor was planted in deep water and the hawser hove taut, in readiness for getting the vessel off when the tide swelled, it then being nearly low water. Upon the flood tide the schooner was floated off without damage and taken into the inlet to a safe anchorage, the life-saving crew completing their labor and returning to their station by 10 o'clock the same night. An easterly storm was coming on, and the situation would have been extremely critical but for the exertions of the life-saving crew. The people on board were profuse in their expressions of thankfulness for the services so opportunely rendered.

April 28.—The British steamship Nankin, of London, England, bound from New York to Liverpool, in ballast, and carrying a crew of thirty-eight men, was run into and sunk in the Swash Channel, New York Bay, by the steamship George W. Clyde as the latter was entering port, the collision occurring at about 8 o'clock in the morning. The lookout

at Station No. 1, Fourth District (Sandy Hook, New Jersey), six miles distant, upon discovering the accident, reported the fact, and the life-saving crew as quickly as possible launched their boat and went off to tender assistance. Upon arrival at the scene of the disaster, at about 9 o'clock, after an exciting pull to reach the vessel, if possible, before she sunk, they found the crew had been already taken off by a passing tug. The captain of the wreck thanked the men warmly for pulling so far and so promptly to his assistance, but said he did not think their services were needed, as the vessel was almost entirely submerged. So after remaining in the vicinity until the steamer's crew left on the tug for New York, the life-saving crew returned to their station, arriving there at 10 o'clock, quite fatigued after their long pull of about twelve miles there and back. Although in this case nothing was accomplished by the trip, the men deserve much credit for their conduct, the distance to the vessel being made by them in the incredibly short space of half an hour from the time they launched the boat.

April 28.—The sloop Andrew Luffbarry, of Great Egg Harbor, New Jersey, bound from that port for the Delaware River, lost her boat in going out over Great Egg Harbor bar, and the crew of Station No. 30, Fourth District (Beazley's Point, New Jersey), rowed out, recovered the boat, which had drifted into the breakers, and towed it out to the sloop.

April 29.—A schooner running dangerously near the beach, near midnight, put about and saved herself, upon seeing the red Coston light burned in warning by one of the patrolmen of Station No. 7, Second District (Peaked Hill Bar, Massachusetts).

April 29.—In the watch between 8 o'clock and midnight one of the patrolmen of Station No. 12, Second District (Orleans, Massachusetts) saw a vessel dangerously close to the beach and warned her off by burning a red Coston light.

April 29.—A great excitement broke out at Two Rivers at 10 o'clock in the morning, upon the discovery in the edge of the river of the body of a little girl two years old, named Rosa Sears, creating the supposition that the mother of the child, Helena Sears, had also been drowned. The life-saving crew at once came to the scene in skiffs, and began a search with fish-hooks, which soon proved inoperative in the thick weeds and other water-growths in the margin of the river, and were exchanged for boat-hooks, by one of which, in the hands of the keeper, the body of the mother was brought up at nearly 2 o'clock in the afternoon, a hundred feet from shore. Her death was supposed to be a suicide.

April 30.—At half past 3 in the morning, the south patrol of Station No. 16, Sixth District (Bodie's Island, North Carolina), saw a steamer running into danger, and warned her off by burning his red Coston light.

April 30.—At about half past 7 in the evening the lookout at the floating life-saving station at Louisville Kentucky, (No. 10, Ninth District), discovered a small river skiff, with two men in it, drifting down the rapids in mid-stream, and in imminent danger of going over the cross-dam of the Ohio falls. The men had lost all control of their frail craft as it swept past the station, and their situation was one of great peril. The alarm gong was instantly sounded, and in less time than it takes to record the occurrence three of the sturdy life-saving crew were speeding to the rescue. The skiff was reached in a few moments, and then taking the two men into the station boat as quickly as possible, the gallant life-savers turned about, with the skiff in tow. Upon reaching the station and recovering from their fright the rescued men became

loud in their expressions of gratitude to the little band who had so daringly saved them from a watery grave.

May 1.—At 2 in the afternoon the two-masted fishing-boat Maggie, of Erie, Pennsylvania, while lying at the Government pier, abreast of Station No. 8, Ninth District (Cleveland, Ohio), having just returned from the lake with a catch of fish, was run into by the steam-tug James Amadeus, and would have sunk but for the prompt exertions of the life-saving crew, who at once turned out to her assistance. After seeing her crew of three men safely ashore, the boat's lines were hauled as taut as possible, to prevent her from settling to the bottom as she filled with water. The next thing was to relieve her of all the weight possible, and while one of the surfmen, attired in a water-proof life-saving suit, removed about a ton of stone ballast, the rest of the station crew saved the nets and fish, and unshipped and removed the masts, with the sails and rigging attached, to lighten her. She was then towed up the river to the boat-house of the United States Engineer Department, where temporary ways were constructed, and with the aid of tackles, the boat, after an hour's hard labor, was hauled out and blocked up for the purpose of effecting necessary repairs.

May 1.—At half past 4 in the afternoon, as the stern-wheel steamer T. Shiver, of Evansville, Indiana, bound from Green River to Louisville, Kentucky, with two barges laden with staves in tow, was emerging from the Louisville and Portland Canal at Louisville, she was caught by the wind and current and driven afoul of the wing-dam of the Ohio falls, whence she was unable to extricate herself without assistance. The accident was discovered by the lookout at the life-saving station (No. 10, Ninth District) at Louisville, and the crew went at once on board to render all the aid possible. The steamer had a very light crew of twelve persons, all told, mostly green hands, and the captain very gladly accepted the proffered assistance. The station men therefore went to work and ran the necessary lines to the river bank, and by 8 o'clock succeeded, after considerable effort, in heaving all three vessels clear of the dam, thus enabling the steamer to proceed with the barges up to the city without damage. The captain was warm in his thanks for the services rendered.

May 1.—At 8 o'clock in the evening, the weather being clear, the watchman of Station No. 8, Eleventh District (Muskegon, Michigan), saw a man clinging to a capsized boat near the mouth of the harbor, and at once launched a small boat which happened to be at hand and rescued him. The capsized boat was afterwards recovered and brought ashore. The man was a foreigner, unable to speak English, and was highly intoxicated, his condition in this respect being probably the occasion of the accident by which he would have lost his life but for the intervention of his rescuer.

May 1.—At 6 o'clock in the evening, two men were seen from Station No. 17, Eleventh District (Two Rivers, Wisconsin), a mile distant, preparing to land their boat on the beach through the surf, and the keeper, apprehending disaster, started three of the surfmen to assist them, who took the boat in hand, and by 7 o'clock brought it safely around into the river.

May 2.—At 3 o'clock in the morning a boat belonging to the schooner Jessie Martin got away from the vessel, and was rapidly drifting south when discovered by the man on watch at Station No. 11, Eleventh District (Chicago), who darted out in a skiff, overhauled the boat, and brought it into the station, where it was pulled up on the dock, and eventually turned over to the vessel.

May 2.—The crew of Station No. 13, Eleventh District (Kenosha, Wisconsin), launched the life-boat, and had a hard and heavy pull of three hours in a bad northeast sea, going to the relief of the schooner Arrow, of Waukegan, which was seen from shore rolling heavily under a double-reefed foresail. She had blown away her mainsail, and her men were found busy repairing it, so that no assistance was necessary.

May 3.—The schooner Maria, of Saint Joseph, Michigan, came within a quarter of a mile of Muskegon Harbor, when she lost her rudder, thus becoming disabled. Two of the crew of Station No. 8, Eleventh District, happened to be near, fishing, boarded her, helped to get her in close to the piers, where they ran out lines and hauled her into the harbor.

May 3.—Between 12 and 1 o'clock in the day, Surfman McMillan, of Station No. 11, Eleventh District (Chicago), was returning from dinner to the station, when he heard some children screaming on the opposite side of one of the harbor slips, and ran back, seeing as he sped around the slip the head of a boy in the water. Arriving, he leaped on the top of two spiles in the water, which were so small that they afforded him barely a foothold, but, aided by a man on the pier, he steadied himself, reached down, caught the boy by the hair, and pulled him out, thereby saving his life, as he had sank repeatedly.

May 3.—At 10 o'clock P. M., the night being dark and foggy, with a fresh southeast wind, one of the patrolmen of Station No. 13, Eleventh District (Kenosha, Wisconsin), saw the dim outlines of a vessel standing for the land, and so near that she would have been ashore in five minutes. He at once let blaze his red Coston light, and had the satisfaction of knowing that the vessel immediately went about and out of danger, she being then so near that he distinctly heard from her deck the command, "Hard a-lee!"

May 4.—The sloop Northern Light, of Portland, Maine, bound from that place to Blue Hill, Maine, with an assorted cargo, and a crew of four men, sprung a leak off the mouth of the Kennebec River, but by hard pumping her crew managed to keep her free, and ran for Seal Harbor, hoping to get assistance from the Life-Saving Service. She succeeded in getting in, and about 4 o'clock in the afternoon ran onto the flats, where she was boarded by a surfman of Station No. 5, First District, Maine, who happened to be out boating. The station being closed for the season, the surfman reported to the keeper at his house, who got together a crew of six men and went out to the sloop. They found her crew worn out with hard pumping. There was on board the vessel a hoisting-engine, which the keeper believed might be arranged for pumping the vessel so she could proceed on her trip. The cargo, which was so stowed around the engine that it could not be worked, was removed sufficiently to leave it free and admit of its being rigged for pumping. At low water, when the hull was left bare upon the flats, the keeper and the master of the vessel examined the bottom and found several leaks, which they calked. The vessel proved quite tight at flood tide. A quantity of fresh water was then taken aboard, to be used in the steam-boiler in case of a leak. At high water the life-saving crew took the sloop off the flats to an anchorage, anchored her, furled her sails, and tried her pumps, finding her still tight. At 11 o'clock at night they called up her captain, who had turned in very tired at dusk, leaving the vessel in care of the keeper, and left the sloop for the shore. The next morning the vessel proceeded on her way.

May 4.—Capt. Nathaniel Robbins, newly appointed superintendent of the Eleventh Life-saving District, received a sort of baptism into

the service on this date, and celebrated his fresh incumbency by saving a life. A grandchild of his, the two-and-a-half year old child of Mr. C. M. Winslow, of Saint Joseph, Michigan, while playing upon the ferry-boat dock, was accidentally knocked off by a playmate into water ten feet deep. The little fellow, upon coming to the surface, clutched at a skiff moored near by, but soon becoming exhausted, let go and would have sunk and been lost had not Captain Robbins come up on the run, sprang into the water, and saved him. The child appeared dead when taken from the water, but was brought to by restoratives. The local press noted that the first act of the superintendent in his new capacity was the saving of his own grandchild from drowning, the fourth child, it is reported, that he has saved in the same way.

May 5.—At 6 o'clock in the evening the sloop *Maggie Bell*, of and for Chincoteague, from Hog Island, Virginia, with a cargo of oysters, and carrying a crew of two men, was driven ashore in a severe northeast storm on Wallops Beach, at a point about two miles below Chincoteague Inlet and six miles southwest by west of Station No. 7, Fifth District (Assateague Beach, Virginia). The stations on that coast had closed for the summer season a few days previous (April 30), but the vessel was discovered by one of the crew of Station No. 7 at about the time she drove ashore, in the dusk of the evening. The man hurried to Chincoteague and notified the district inspector, as well as the keeper of No. 7, and such other members of the service as he knew to be present in the village, men belonging to his own station and at No. 8, the next station south; there being the keeper and two surfmen of No. 7, and the keeper and one surfman of No. 8, five in all. It was deemed inexpedient to go to the station for the surf-boat, as the journey would involve the loss of too much time, the inspector directing them to take the station supply boat, then moored at the Government wharf at Chincoteague. A start was made at a little before 9 o'clock by way of the inside passage, and the party reached the vessel about midnight, to find that her crew were safe and had gone on board a small vessel anchored near the inlet. The life-saving men proceeded at once to save the sails and rigging and other movable property, completing their labors by 1 o'clock in the morning (May 6), the vessel being then full of water and rapidly breaking up. The captain of the sloop accompanied the men back to Chincoteague, where they arrived at 6 o'clock the same morning, after a long and disagreeable night's work. At Chincoteague the captain was at once provided with dry clothing to enable him to continue on to the residence of the owner of the vessel, some distance off, to report her loss. Although the crew of the sloop had succeeded in gaining the shore before the arrival of the life-saving crew, and the latter were instrumental in saving the outfit of the vessel only, the alacrity and devotion to duty displayed by the men of the service in turning out to brave the dangers of the storm on a dark and tempestuous night deserve the highest commendation, the men one and all fully sustaining their previous good record while on duty at their respective stations during the active season.

May 5.—At about a quarter past 1 o'clock in the afternoon, a small fishing schooner without name, of Saint Joseph, Michigan, which was fishing in the lake off that place, with three men on board, was struck by a squall, and as she was carrying too much canvas at the time, the wind being strong from the northeast and quite a surf running, she was at once capsized. The accident was instantly seen by one of the patrol of Station No. 10, Eleventh District, and the surf-boat sped to the rescue. Her crew found the three men clinging to the capsized boat, and,

taking them into the surf-boat, put back for the shore, but meeting on the way a towing tug, the *Lew Wallace*, the master of which, Captain Barnes, was also on his way to the rescue, they transferred them to her, so that they could be made warm, all of them being chilled through, and one quite exhausted and helpless. The life-saving crew then rowed back and ran a line to the tug from the capsized boat, by which she was towed back to the harbor dock, where, by the use of an iron-ore derrick, she was set upright and bailed out by the station crew. The schooner lost about three hundred dollars' worth of her nets, seventy dollars' worth of which was recovered the next day.

May 6.—The crew of Station No. 9, Ninth District (Marblehead Point, Lake Erie), saw, at 8 o'clock in the morning, a flag flying reversed at half-mast from a schooner-barge three miles from the station, and at once set out in the surf-boat; the keeper, mistrusting that the vessel was water-logged, taking an extra man along to help to pump. The weather was cold and cloudy, with a heavy sea. Upon arriving alongside they found that the barge was the *Mary Stockton*, of East Saginaw, Michigan, bound to that place from Cleveland, Ohio, without cargo, and with six men on board. She had been in tow of the steamer *Ontonagon*, with another barge, which had run into her, damaging her so that she sprung a leak, and filled so rapidly that her crew could not keep her clear. In this plight the captain had set his signal of distress, which had been responded to by the crew of a barge at anchor near by, who had boarded her and pumped her clear by the time the life-saving men arrived. The only service the life-saving crew could render her captain was to get his baggage at his request from a barge near by, and put it on board his vessel, which they did. The sea was so heavy that the life-saving crew were compelled to wait until 5 o'clock in the afternoon in the lee of a neighboring island until it had run down, and were not then able to effect a landing at the station, but had to run to Lake Side and leave the surf-boat there.

May 8.—About a quarter past 8 in the morning a man and a little boy in a small skiff had a narrow escape from being swept over the dam at the Falls of the Ohio, Louisville, and being drowned. The man had been accustomed to managing a boat all his life in the river below, but knew nothing of the dangers of the dam. He was on the point of being carried over with the child despite his efforts, when one of the boats of Station No. 10, Ninth District, which had been out for practice, dashed up and achieved a perilous rescue. The man said he had been in some very close places, but this from which the crew saved him and the little boy was the worst of them all.

May 8.—Word came to Station No. 10, Ninth District, (Louisville), at 11 o'clock of a gloomy night, that a man had committed suicide by drowning himself in the river at the Jeffersonville Ferry Dock. The keeper had drags put into one of the station boats, rowed to the place, and began to drag for the body. After a large space of the rocky bottom had been dragged over for two hours, and all the hooks on the drag broken, the keeper judged it best, as a storm was rising, to abandon the hopeless search for the suicide, and put back to the station.

May 9.—A man named Frederick Ryan, who had never been in a boat before, went out from Kenosha, Wisconsin, for a sail, and getting excited and alarmed in the strong south wind soon found his boat unmanageable, and was in serious danger. Surfman Mahoney, of Station No 13, Eleventh District, saw the boat out on the lake a mile northeast of the Station, and, seeing her sail come tumbling down, divined that something was the matter, and instantly put out to her in a small row-boat. He

came up just in time to save the man from being drowned. In his agitation he had lost his oars, his boat was already half full of water, which he had no means of getting rid of, having no bailing dish, and in a few minutes the craft would have sunk. Surfman Mahoney brought both man and boat safely to the station.

May 9.—The schooner *Sea-Star*, of Racine, Wisconsin, bound from Foscoro, Wisconsin, to Chicago, Illinois, with a cargo of cedar posts and a crew of four men, stranded in foggy weather, at 1 o'clock in the morning, a hundred yards from shore, three miles north of Station No. 16, Eleventh District (Cheboygan, Michigan). She was discovered a couple of hours after the stranding by one of the patrolmen, and the crew started for the wreck as soon as the report reached the station. After pulling half way, they saw a man on the beach, and, rowing in, found that it was the captain of the schooner, in search of assistance. They took him into the boat and pulled back to the harbor, where a tug was engaged. The life-saving crew assisted the tug in taking on five or six tons of coal, and at 7 o'clock started again in tow of the tug for the wreck, where they arrived half an hour later. The vessel was found with a foot and a half of water in her, and, after running out an 8-inch hawser from her to the tug, they set the pumps a-going to free her. The tug having pulled an hour without starting her, the life-saving crew fell to and threw overboard about nine hundred cedar posts which lightened her so that she came off the beach, and by half past 11 o'clock in the forenoon was safe in the harbor at Cheboygan, after nearly four hours' hard work on the part of the life-saving crew. In the afternoon they went down on the beach and saved forty dollars' worth of cedar posts which had washed ashore, and which they turned over to the captain. The value of the vessel's cargo was \$600, of which five hundred dollars' worth was saved in good condition.

May 10.—At half past 6 o'clock in the evening, the lookout of Station No. 10, Ninth District, (Louisville), saw a man in a small skiff, which had swamped, going over the wing-dam, and gave the alarm. The station boat at once flew out and jumped the dam in pursuit, finding the swamped skiff floating with the current, and the man swimming for the shore. He had landed before they could catch up with him, and they could only take his skiff in tow and land it for him. The surveyor of customs was at the station, a pleased witness of the daring performance of the crew.

May 10.—The crew of Station No. 5, Tenth District (Sturgeon Point, Lake Huron), rendered service by leaving the station at nearly 10 o'clock at night; going out with the boat in two teams several miles distant to Harrisville, a mile from which the barge *Genesee Chief* lay, dragging her anchors; launching, and taking out to his vessel the captain, who had been ashore, and was anxious to be put on board.

May 10.—About midnight, the schooner *Lucinda Van Valkenburgh*, of Chicago, bound from that place to Green Bay, Wisconsin, with seven men on board and no cargo, ran ashore in a rough sea and thick fog about thirty yards from the beach, seven miles south of Station No. 16, Eleventh District (Sheboygan, Wisconsin). At 8 o'clock in the morning the captain appeared at the station and requested assistance. Keeper Oley Groh and his men at once started, took a tug's big hawser aboard of her from the dock, and left in the surf-boat in tow of the tug for the scene of the wreck. Arriving, it was found impossible to do anything to get the vessel off just then. She had worked up to within fifteen or twenty yards of the beach, and was so buried in the heavy swash of water as to be above it only eighteen inches. Being so high up on shore

her crew were in no danger, and remained on board. On May 16, at 3 o'clock in the morning, the station crew again went out to her with a steam-barge, but after working all day were unable to pull her off. The next day, May 17, they were again on hand at 3 o'clock in the morning with another tug, ran out a 10-inch hawser to the wreck, and by 2 o'clock in the day, after thirty-two hours of very hard work, had her safely in Sheboygan Harbor.

May 11.—The three-masted schooner *Jesse Winter*, of Muskegon, Michigan, bound from that place to Sheboygan, Wisconsin, with three men on board, and a cargo of lumber, parted her chains while at anchor, in a northeast gale, and stranded a quarter of a mile from shore, two miles south of Sheboygan Harbor. The south patrol of Station No. 13, Eleventh District, discovered her near midnight, just as she had stranded, and reported the fact at the station without delay. As the vessel lay under what is called the Clay Banks, which are bluffs about forty or fifty feet high, Keeper Oley Groh dispatched him back to build a fire on the summit of this eminence, while he and his men followed after with the mortar-cart and beach apparatus. The sea was running all over the beach, so the only road open to the crew was by a detour of four miles through mud and swamps. After a vigorous and toilsome haul through torrents of rain they arrived about half past 2 o'clock in the night upon the Clay Banks, where their signal-fire was burning. The vessel had by this time worked up to within seventy yards of the beach. The wreck-gun was planted, and the keeper fired a line, at the first shot, between the schooner's fore and main masts, got up the hawser, and hauled in the three sailors in the breeches-buoy. One of the surfmen was then sent out in the breeches-buoy to let go the hawser, the breeches-buoy being rigged upon the whip-line to fetch him back. The hawser being pulled ashore, the surfman was then brought in, and the whip unrove, leaving only the tail-block on the wreck. The life-saving crew got back to the station by half past 7 in the morning. The schooner was subsequently hauled off by a tug.

May 11.—The schooner *Lottie Mason*, of Charlevoix, Michigan, bound to that place from Milwaukee, Wisconsin, with a cargo of provisions, and having four men on board and the captain's wife, dragged her anchors and went ashore at 3 o'clock in the morning, two hundred feet from shore, and three and a half miles north of Station No. 17, Eleventh District (Two Rivers, Wisconsin). The weather was bad at the time, the wind being strong from the northeast, with rain, and the surf heavy. The wreck was discovered by one of the patrolmen, who had set out from the station at 3 o'clock and arrived abreast of the vessel by half past 4. He at once hastened back to the station, and the keeper roused the crew and got a team to haul the surf boat to the scene of the disaster, the wind having great force and being right in the teeth of the crew. By 7 o'clock they were abreast of the vessel, and at once ran the surf-boat into the breakers, the men getting drenched to their waists in the icy water in effecting the launch. The vessel was soon reached, and the captain and his wife, together with a valuable trunk, were brought ashore, the three sailors composing the crew preferring to remain on board, inasmuch as the schooner did not leak. The life-saving crew got back to the station by 9 o'clock in the morning, and assisted the captain and his wife in getting accommodations at a hotel, and showed the captain the location of the telegraph office. By 4 o'clock in the afternoon, when the sea had gone down, it was possible for a man to jump from the vessel to the shore, she was so high up on the beach. By evening of the next day, however, she was a distance of

nearly a hundred feet away, so that the captain, whose wife had gone on board again at 9 o'clock in the morning, found himself unable ten hours later to get to the schooner by wading. The keeper of the station now thought it highly advisable to set a watch over the vessel, and detailed a patrolman for the duty. The weather continued cold and gloomy, and by evening the strong north wind was accompanied by rain. At 10 o'clock the captain's wife landed once more in the ship's yawl, with two of the sailors. The third sailor was unable to get into the yawl, and had to be left on board the now endangered schooner, around which a wild surf was leaping, and which was pounding the bottom very hard. The keeper and one of his men, solicitous for the safety of the solitary sailor, made a brave effort to reach the schooner in the yawl, but failed, the boat being swamped in the attempt, and the two men regained the shore, wet to their waists by the sea. It was concluded from this experience that the condition of the surf precluded boat service just then, and the hard haul of the surf-boat from the station was therefore not ordered, although the keeper's anxiety for the seaman left on board the schooner made him resolve to stay abreast of her with his men until daylight, despite their drenched condition. Soon after, the captain arrived upon the beach, and the keeper proposed to send for the wreck-gun and apparatus to land the sailor by their agency, but found that the captain, who doubtless knew the soundness of his vessel, wished the man left on board, so that he could stay by the pump. The captain remained with the keeper on the beach until morning, at which time the surf was too bad for boat service. At 7 o'clock A. M. the life-saving crew returned to the station. At 11 o'clock wind and sea had moderated, and the captain wishing to learn the condition of the schooner, the life-saving crew got a four-oared boat from a fisherman, equipped themselves with boat-hooks and lines, and went out to her. She was found to be in good condition. The sailor on board was brought ashore. Shortly after, at the captain's request, the three sailors were again conveyed to the vessel by the life-saving crew, who afterwards returned to the station. The captain, having procured a tug from Manitowoc, again appeared at the station at 8 o'clock in the evening, and requested the keeper to come with his men and help to get the vessel off. The keeper and crew responded, taking the surf-boat and a 4½-inch hawser of 100 fathoms, to lengthen out the tug's tow-line. An unsuccessful attempt was made to heave up the anchor, and the chain was slipped and buoyed. The life-saving crew having run out the line to the tug, the work of hauling off the schooner began. By midnight she was afloat, and, receiving many thanks from the captain for their constancy and their services in getting the vessel off, the life-saving crew returned to the station.

May 13.—The British steamship *Pliny*, of Liverpool, 1,069 tons register, Robert Mitchell master, stranded on the bar off Deal Beach, New Jersey, shortly after 3 o'clock in the morning, while on a voyage from Rio Janeiro to New York with twenty-five passengers and a valuable cargo of coffee and hides. The bar on which she struck is about one hundred and fifty yards from the beach. There were sixty-one souls on board, all told; the crew numbering thirty-six, including the stewardess. Among the passengers were three women and ten children, one of the latter being an infant two months old.

Fresh to strong northeasterly gales had prevailed for several days, causing a rough surf upon the shore. The sky was overcast with low and heavy clouds, which rendered the morning a very dark one; the gloom being intensified by drizzling rain, so that the steamer was close

to the land before its proximity was known. Her commander had believed himself well to the eastward, off the Long Island coast, and he was therefore heading her on a west-southwest course (dead on to the land) when the lookout descried breakers ahead. The helm was instantly put to starboard, but before she could be brought around she grounded heavily on the sand-bar, broadside to, with her head to the southward. As soon as she struck, the seas commenced breaking against and over her, fore and aft.

Finding she remained hard and fast, several distress rockets and a "Holmes" signal were burned to call assistance from the shore. The hatches were soon burst in, and the water poured into the vessel in large volumes, and before long the engines ceased working. The three boats on the port or off-shore side were also washed from their davits and swept away. The passengers, much alarmed, rushed on deck in a state of panic, but the officers reassured them and persuaded them to return to their quarters, there being danger at times of the seas carrying them overboard if they remained on deck. As it was near daybreak the captain felt hopeful that assistance would soon arrive, but to be prepared for the worst he mustered the crew and got the starboard life-boat ready for lowering.

By the time this was done it was light enough to see a party of men who arrived on the beach abreast of the ship, and, as the captain thought, made signs for the crew not to lower the boat, and then started back from whence they came to the southward. It appears that, the evening before, Surfman Benjamin Van Brunt, of Station No. 6, which, with all other stations in the Fourth District, had been closed for the summer season on April 30, who resides at Whitesville, about two miles inland from Asbury Park, had a social gathering at his house. Among others invited were Joseph S. Knowles, who had served a portion of the last season at the station, and Russell White, of Asbury Park. The night being stormy, Van Brunt, Knowles, and White agreed to go to the beach on the lookout for wrecks. Arriving on the beach at about 2 o'clock in the morning, White suggested that they take shelter in his fish hut on the southerly edge of Great Pond, the northern boundary of Asbury Park, and that each in turn keep watch. This being settled, White went out on patrol, lantern in hand, while Van Brunt and Knowles remained inside; the latter busying himself in making a fire in the stove.

Soon after 3 o'clock White returned and reported seeing a rocket to the northward. His companions hurried out, and the three started up the beach, using a small boat of White's for ferriage across the pond, which was open to the sea. The sight of a second rocket, while crossing in the boat, quickened their movements, and upon reaching the opposite bank they started on a run for the spot indicated by the signals, stopping for a moment at the life-saving station near the pond (No. 6), to leave a hatchet, which one of them carried in anticipation of the necessity of breaking in the doors to get the apparatus out. At the distance of a mile and a quarter from the station they found a large vessel aground on the bar, nearly abreast of what is known as Sickles Pond. The lantern was swung to apprise those on board that their situation was known, and then the three returned in haste towards the station. Mapping out as they went the best course to be pursued, Knowles took the lantern and proceeded in a southwesterly direction to the farm-house of Mr. Hathaway, at Deal, for a span of horses to draw the apparatus, while his companions kept along the beach to the station. Van Brunt attempted to pry open the large boat-room doors, but, fail-

ing in this, he suggested to White, after a short parley, that the small door be burst open. It was the best thing to be done, as Keeper Slocum lived two miles away, and to go to him for the keys would involve the loss of too much precious time. Suiting the action to the word, a few vigorous blows on the door gave them access to the living-room, and a moment later the large doors of the boat-room were swung open. Van Brunt's familiarity with the location of everything in the house assisted him, in the dark, to find the signal rockets. But how to fire them was the next question, as neither of the men had a match in his possession. After diligent search, Van Brunt found just one. Without waiting to light the station lamp, in their excitement, they succeeded in firing off two rockets with the match thus found, and then cleared away the apparatus and hauled it out of the house. This was a laborious task for two men, and by the time it was done Knowles arrived with Hathaway's team, which was driven by one of the farm hands. The beach cart containing the breeches-buoy apparatus was hitched behind the farm wagon and a start made along the country road leading to Elberon and Long Branch.

Just as they were leaving the station, Cornelius Van Note, one of the old crew, arrived on his way to the beach. He was requested to call Samuel Van Brunt, Benjamin's brother, and when the party reached the road, one of them, Knowles, jumped off at the house of Borden Walcott, another of the regular crew, and notified him. Thus re-enforced, the relief party made all possible haste to the locality of the stranded vessel, where they arrived at about half past 4. It was now light and the scene was a wild one.

Out on the bar lay a large steamer in the midst of the heaviest breakers, which kept up a tremendous battery against her side, and deluged the deck with foam. Her people could be seen scattered about wherever any shelter was afforded—some on the bridge, to leeward of the chart-room, amidships; some forward under the break of the forecastle; and others aft under the lee of the saloon cabin; but all anxiously peering towards the shore, watching and waiting for help. In the cold gray dawn the sight of those poor people drenched and shivering on the wreck was enough to quicken the pulse of the most callous. The little band on shore seemed nerved to extraordinary exertion, and went to work manfully and earnestly at the task of rescue. The beach opposite the wreck is about fifty yards wide, and back of that rises a steep bluff perhaps twenty or twenty-five feet high. It was on this bluff that the rescuers had called a halt. There were present the two Van Brunts (Benjamin and Samuel), Van Note, White, Knowles, Walcott, and Mr. Hathaway; the driver, John Smith, having been sent back with his team for the surf-boat.

Benjamin Van Brunt assumed, for the time, the direction of the operations, and while he and Knowles loaded and prepared the gun, the others planted the sand-anchor, and arranged the lines. Everything being in readiness, Van Brunt handled the lock-string and sent the shot over the vessel with beautiful precision, the line (a No. 9), falling among the assembled people on the bridge, abaft the smoke-stack.

The steamer's crew, knowing the purpose of the line, ran it in, hand over hand, and on receiving the whip-block it was passed into the fore-rigging and made fast around the foremast, about twenty feet from the deck. Next came the hawser, but owing to the smallness of the party on shore, they were unable to dispose of their force in such a way as would keep the lines asunder while in transit, and the result was that the two parts of the whip became almost inextricably twisted by

the action of the current setting strongly to the southward around the hawser, and thus matters came to a temporary standstill. Failing to clear the lines readily, they hauled the boat, which had just arrived, down to the beach, with the intention of launching it. There were scarcely men enough present to man her, and while they were debating what should be done next, Keeper Green, of No. 5 (Long Branch), arrived in his wagon, and also Surfmen John Redmond and John Pierce, of Station No. 7 (Shark River). The two latter had journeyed from the vicinity of their station, several miles distant, having seen the two rockets sent up from No. 6 by Van Brunt and White. From long experience in the service they understood the import of the signals and made all the haste possible on foot, arriving in season to render good service.

Green, being the only keeper on the ground, assumed command. After consultation it was decided that the surf was still too dangerously high to venture with the boat, although the tide had fallen somewhat. All hands therefore turned to again in an effort to clear the entangled lines. After considerable difficulty they succeeded, with the aid of the steamer's crew, in getting the gear into working order and the breeches-buoy was sent off. It was then between half past 6 and 7 o'clock. The first to land was a woman, and she was followed by one of the men with a child in his arms, or rather nestled under his coat. Their experience was a rough one from the fact that the hawser had slacked by the vessel working inshore a little. It naturally followed that when midway between the ship and shore, the sag of the line, weighted with its living freight, carried the buoy into the water, and gave the poor baby and the man a ducking. It was only momentary, however, for strong hands and willing hearts soon brought them safely ashore. The hawser was then tautened, and with one or two men to attend the tackle and keep the necessary strain on the large line, the work of rescue went on until all the passengers were landed. As each one came in Mr. Hathaway superintended their dispatch in vehicles to the house of Samuel Hendrickson, which was the nearest place of shelter. Some of them reached the beach in sorry plight, barefooted and almost nude; indeed one woman was so nearly naked that a bystander was called upon for his overcoat to cover her when lifted from the buoy. It was also found necessary to send to the station for blankets to cover others. The children, poor little creatures, were the worst off. Barefooted and thinly clad in garments such as are worn in the tropic climate of Brazil, the searching northeast wind and chilling mist gave them a pinched and woe-begone appearance which excited the active sympathy of the shore folk, who did everything possible for their comfort. The box of clothing placed at Station No. 5, by the Women's National Relief Association, was found very useful at this juncture, as it contained just what was wanted. The residents also contributed freely in the same direction.

As the work of rescue progressed quite a crowd of people from Asbury Park, Deal, Elberon, and Long Branch had congregated on the scene, so that before long they could be counted by hundreds, many of them assisting energetically in the manipulation of the apparatus. Among the latter were several of the crew of No. 5, who arrived soon after Keeper Green. When the last passenger had been safely landed there was a pause in the operations, owing to the refusal of the officers and some of the crew to leave the ship. With the recession of the tide the surf gradually subsided and the question of using the surf-boat again came up. About this time, say half past 8, John Slocum, keeper of No.

6, arrived. The wreck being within the precincts of his station he took his place at the steering oar, and with a picked crew of men belonging to Nos. 5, 6, and 7, respectively, the boat was taken off in good shape. The ship was upwards of two hundred and eighty feet in length and afforded a good lee in approaching her; still, the sea was rough enough to compel the exercise of judgment and skill in making the trip. There were Asher Wardell of No. 5, William Van Brunt and Cornelius Van Note of No. 6, and John Redmond and John Pierce of No. 7, and Benjamin Van Brunt of No. 6, at the stroke. The steamer's crew were brought ashore in four trips, the captain and officers coming last. All hands could have been landed in three trips but for the refusal of the officers to leave her. The boat's crew reported this fact when they landed the third time, and Keeper Green decided to go off and point out the danger of their remaining. This had the desired effect, and the officers were soon afterwards safe on the beach. On one trip a sailor in coming over the ship's side lost his hold and fell into the water between the ship and one of her boats which had been lowered and was lying alongside. The surf-boat, at the time, was alongside the ship's boat. Observing the man fall, Keeper Slocum jumped into the ship's boat from his own, and seized the man by the collar, threw him on his back, deftly rolled him over the gunwale, inboard, and helped him into the surf-boat. But for this feat of skill and strength, which showed true life-saving craft, the man might have drowned, as in a moment more he would have been swept away by the current. It is related, however, that he expostulated at Slocum's rough and ready rescue, when the latter retorted that he could not afford to stand by and see him drown. The fact is, the man was under the influence of liquor, which had been surreptitiously obtained from the spirit room by some of the men while the officers were busily superintending the landing of the passengers. In this connection another incident should be mentioned. When the captain was about to leave the ship he directed the second and fourth officers to make diligent search fore and aft, to be sure they were leaving no one on board. The officers reported all hands out of the ship. With this assurance they shoved off and were taken ashore. This was at ten o'clock. Supposing, of course, that the work of rescue was complete, the beach party naturally turned their attention towards making the visitors cast in their midst as comfortable as possible, the crew of the ship going to Station No. 6. What was the astonishment, then, of the crowd left on the bluff idly watching the wreck, at seeing about 2 o'clock in the afternoon a man moving about the deck, who finally ascended the fore-rigging and made signs of getting into the breeches buoy which hung to the hawser, just as it had been left near the ship, when the crew refused to come ashore in it. Getting responsive signals from the bluff, he clambered into the buoy and in a few minutes was on terra-firma, surrounded by his rescuers, who plied him with questions as to how he came to be left behind. He proved to be the carpenter of the ship. It appeared that while the boat was engaged in landing the ship's company early in the forenoon he had taken his place in it, but changing his mind he managed in the confusion of the moment to climb back on board unnoticed, and go below, out of sight. He claimed that he had been asleep and did not know the rest had gone ashore.

Most of the passengers and crew were sent by rail to New York late the same day, the latter being taken in charge by the British consul, while the captain and officers remained at Long Branch, at the house of Keeper Green, for several days.

With the subsidence of the storm on the following day, the mails and

some baggage were recovered, but as the ship had then broken in two amidships, all hope of saving her was abandoned. In the operations at this wreck, twenty-one trips were made by the breeches buoy, and thirty-one persons, including the ten children, were brought ashore in it, while thirty were landed by the surf-boat; aggregating a total of sixty-one saved.

The captain was loud in his praise of the rescuing party.

May 14.—About 2 o'clock in the afternoon, the lookout of Station No. 10, Ninth District (Louisville), saw a skiff containing two men making for the middle chute of the falls, and evidently not aware of their dangerous proximity to the cross dam. The keeper at once sent out a boat's crew to warn them, and but for this timely notice they would have been swept over the dam.

May 15.—One of the patrolmen of Station No. 2, Tenth District (Point aux Barques, Lake Huron), discovered, at 10 o'clock in the evening, a steamer closing in upon the reef abreast of the station, and burned a red Coston light, which caused her to haul off and run for deep water.

May 16.—The Portuguese schooner *Ludwina*, of St. George, Western Islands, bound for Boston, with a crew of nine and sixty-three passengers, appeared in the morning off Station No. 4, Second District (Gurnet Point), Massachusetts, with her sails blown away, there having been a northeast gale the day before, and her captain, landing in a boat, endeavored to get some one among the local fishermen to pilot his vessel to Boston, but could obtain no one. Under these circumstances, and as another storm was threatening, the keeper considered it his duty to offer his services, and took the vessel up to within three miles of Boston light, where she was boarded by a Boston pilot, who assumed charge of her. The service was rendered after the close of the active season, and going and returning occupied the best part of two days.

May 17.—The schooner *S. P. Ames*, of Bay City, Michigan, bound to that place from Grindstone City, Michigan, with a cargo of building stone, and having on board three men, stranded through careless steering a mile and a half from shore, on Burnt Cabin Point Reef, Lake Huron, at about half past five in the afternoon. The weather was clear at the time and the surf light. The life-saving crew of Station No. 3, Tenth District (Port Austin), a mile and a half distant, immediately launched the surf boat and pulled out to her. They found her in eight feet of water, and pounding considerably on the reef. Her anchor was at once run out the whole length of the line, and the life-saving crew strained on the windlass, but were unable to heave the schooner off until they threw over about three cords of the stone, which lightened her so that she slid off the reef, whereupon they worked her out into deep water, and left her to continue her voyage.

May 17.—At half past four in the afternoon a small vessel, the *Nellie*, of Detroit, Michigan, came to anchor half a mile north of the harbor piers at Grand Haven, Michigan, to prevent being carried in upon the beach. The crew of Station No. 9, Eleventh District (Grand Haven), went out in the surf-boat and towed her into the harbor.

May 18.—At half past 10 in the morning of May 17, the schooner *Theresa G.*, of Shieldsborough, Mississippi, bound from Galveston to Point Isabel, Texas, with a cargo of lumber, was seen to come to anchor by the keeper of Station No. 6, Eighth District (Brazos Santiago), five miles north of the harbor bar, and seven miles northeast by north of the station. There was then a southeast wind, with a strong flood tide. In the night the wind and sea increased, until a gale set in, and by 8 o'clock the next morning, the keeper, Charles L. Cardiff, saw that the

schooner was flying a signal of distress. He immediately ran to the wharf and tried to collect a crew, but failed, the heavy surf and sea scaring off volunteers, and the local pilot declaring that the surf-boat could never cross the bar. The resolute keeper then hired a sail-boat, and set out across the bay for Point Isabel to endeavor to get a crew at that place, but on his way he boarded the wind-bound schooner *Ajax*, of Indianola, and found there three brave men, John Gillons, the mate, and Christian Johnson and Frank Williams, seamen, who offered to go with him. From another schooner, lying in the harbor near by, the *Laura Louis*, he got three more volunteers, M. Manawich, also mate, and two seamen, C. A. Satterly and Charles Smith. With these six stout-hearted men he put back to the station and ran out the surf-boat. The surf looked wicked, breaking everywhere with terrific uproar, and the lookers-on prophesied nothing but disaster, but the volunteer crew, whom Keeper Cardiff in his official report naively calls "noble men," were only anxious to engage in their hazardous enterprise. The launch was made, and the boat was headed through the heavy seas, with the big combers and the streaming gale upon her beam. A careful watch had to be maintained by the keeper upon the breakers, which every other moment threatened to overwhelm the boat, as they rushed down upon her flank, and at times the bows were quickly turned to meet a sea more than ordinarily enormous. In this way progress was made, the bar crossed, and the schooner reached after an hour and a half of intense labor and danger. She was making terrible weather. Laden low with lumber, and held by her anchor, she dived head foremost every few seconds, burying her bows out of sight as far as the foremast, the center of a mass of furious foam. The surf-boat drew up astern, and the keeper called for a line, which was hove to him from the schooner, caught by the bow-oarsman and secured. The boat now hung on, and Keeper Cardiff sang out for another line, which was thrown him, and fastening the end of it around his body, and shouting to the sailors to haul in, the gallant keeper threw himself from the boat into the sea. The sailors hauled away, dragging him through the flood, and in a few minutes he had clambered up, and stood drenched and dripping on the reeling deck of the schooner. He soon learned her name and condition. She was leaking very badly, taking in about two feet of water an hour. The crew of the surf-boat soon got on board of her, hove up her anchor and made sail, getting her about three miles to windward of the bar, when the darkness began to gather, the day having been spent in these efforts, and the schooner was brought to and anchored. The keeper and his volunteers stuck by all night, relieving the worn-out crew at the pumps, and in the morning got the vessel again under way. At the desire of the captain, who appears to have thought no further assistance from the surf-boat crew needed, they left her for the station at half past 9 o'clock, the keeper being charged with a request to the agents at Port Isabel to send steam help to the vessel, a mission which he subsequently discharged. The surf-boat crew arrived at the station an hour after they had left the schooner, wet, hungry, and exhausted. Something was got to eat and drink, and after the repast, the keeper set out for Point Isabel, and his stout-hearted volunteers returned to their vessels. The vessel remained at anchor off the bar until the 20th, when the wind and sea having gone down, she crossed the bar and reached port in safety.

May 18.—The yacht *Santa Yuba* of Little Sandy Creek, Lake Ontario, was struck by a squall and capsized about 9 o'clock in the morning, eight miles from Oswego. She was manned by two men, who clung to

her and drifted about the lake all day until nearly 7 o'clock in the evening, when the wind, which had changed, had drifted them within four miles distance from Oswego, and they were fortunately seen by the lookout of Station No. 3, Ninth District. The surf-boat was quickly launched and started to the rescue, but the men upon the wreck were also seen from the tug Wheeler which was out upon the lake, and reaching them in advance of the surf-boat, brought them to the station, where they were provided with dry clothing, food, and lodging. The master of the tug also towed the capsized yacht to the station, and the life-saving crew raised, bailed, and repaired her, so that she was ready for sea by the next day. She set sail for Little Sandy Creek the next morning, the life-saving crew accompanying her about six miles down the lake in the surf-boat, by way of a good send-off.

May 19.—At a quarter past 11 in the forenoon, a sailing boat put out from the neighborhood of Station No. 12, Eleventh District (Evanston, Illinois), with two men on board, and knowing their inexperience, the station lookout kept watch upon them. Five minutes later, when about three hundred feet east of the station, the boat capsized through improper management of the sail. Two surfmen at once started to the rescue in a skiff, but met the men swimming bravely to the shore, which they gained without assistance. As their boat was drifting out to sea, the surfmen went after it, pulled it in by a line and bailed it, also recovering the oars, rudder, tiller, and boat-hook.

May 20.—About a quarter past 3 o'clock in the afternoon, the lookout of Station No. 10, Ninth District (Louisville), saw two colored men in an old skiff, called the H. Hawkins, three hundred yards distant, in imminent danger of being swept over the wing dam of the falls, and giving the alarm, a boat at once shot from the station, and reached the men in time to save them. They were quite ignorant of rowing, and getting into the strong current, lost all control of the skiff, and were at the mercy of the flood sweeping towards the dam. They were terribly frightened, and profuse in their thanks to their rescuers.

May 21.—The schooner Paragon, of Eastport, Maine, bound without cargo from Rockland to Eastport, with a crew of three men, ran upon the rocks at Carrying Point Cove, in a thick fog and fresh wind, one hundred yards from shore and twice that distance south of Station No. 1, First District (Maine). The disaster occurred at a time when the stations are closed upon the Atlantic coast, but the keeper happened to be on the beach, and to witness the disaster. He at once secured assistance, launched a small boat, and in ten minutes was on board the vessel, and getting ready a small anchor and line, ran them out. In less than one hour he had the schooner afloat, made sail upon her, and beat her into Quoddy bay. His prompt action saved the vessel, which would have bilged and gone to pieces had she lain on the rocks another hour.

May 21.—The crew of Station No. 1, Ninth District (Big Sandy Creek, Lake Ontario), responded to the blast of a fog-horn from the schooner William Gilbert, which was standing in at 5 o'clock in the evening, a mile north of the station, launched the life-boat, rowed out, and piloted her into the harbor for the night, she being bound for Port Ontario, but too deeply loaded to proceed to her destination against the head wind then prevailing.

May 22.—At half past 4 in the afternoon, the lookout of Station No. 10, Ninth District (Louisville), saw a small fishing flat-boat dangerously near the cross dam at the falls of the Ohio. The life-saving crew sprang to the rescue in their boat, reached her just in time, took her in tow, and piloted her safely over the falls. There was only one man

in the boat, who did not know of his danger until he had got below the dam. He was very grateful, and offered the crew pay for their aid, which they refused.

May 23.—At 8 o'clock in the morning, a strong wind having so roughened the sea that the keeper of one of the beacons on the new Government pier at Oswego, New York, was unable to come off to the shore in his own boat to obtain a supply of provisions, the keeper of Station No. 3, Ninth District, launched the surf-boat and brought him in, and at 5 o'clock in the evening conveyed him back again.

May 24.—At about 2 o'clock in the afternoon a cat-rigged boat, named the Silver Slide, with a small skiff in tow, both laden with household goods, and the principal boat having on board Samuel A. Lloyd and his wife, colored people, who were moving their domestic effects from Providence, Rhode Island, to Bridgeport, Connecticut, was driven into the breakers two miles west of Station No. 2, Third District (Point Judith, Rhode Island). They were seen at a mile's distance by Surfman Charles H. Whaley of the station, who was out fishing, and who hastened to their assistance with Thomas Quinn and Benjamin Clark, both fishermen. They found the boat anchored in the breakers and the skiff cast upon the beach, and taking the boat in hand brought her around the point and anchored her in the lee north of the station, where the keeper, Herbert C. Knowles, and another of the station crew, Chauncey C. Kenyon, were at the time fishing. Surfmen Whaley and Kenyon then went for the skiff, which, with the goods it contained, was brought around the point to a place of safety. The keeper, meanwhile, took the poor colored people to the station, where he and Kenyon were living at the time, although the active season had closed, and furnished them with food and dry clothing. It was found that their boat was leaking badly from having struck on the bottom before their rescuers reached them, and the keeper had to bail her out to keep her from sinking. The two colored people slept at the station that night, and the next morning, the wind and weather being favorable, they resumed their voyage. As they were short of provisions, Keeper Knowles and his mate cooked and gave them a supply of victuals to take with them.

May 26.—The crew of Station No. 10, Eleventh District (Saint Joseph, Michigan), spent several hours in dragging for the body of John H. Rittenhouse, a young man seventeen years of age, who was drowned by the capsizing of a small skiff in going around the north pier of the harbor at Saint Joseph. The accident took place at 8 o'clock in the morning, and the life-saving crew were on the spot in their boat a few minutes after, finally recovering the body at half past 2 in the afternoon, and taking it to the home of the deceased.

May 27.—At half past eight in the evening of May 26 the British steamer Canima, of Bermuda, bound from Halifax to New York, laden with a general cargo, and having on board a crew of twenty-eight men and twenty-five passengers, mistook the light on Bishop & Clerk's Ledge for that of the Handkerchief Shoals light-ship, and ran aground on the southeast part of Handkerchief Shoals, three-quarters of a mile from shore and four and a half miles southwest of Station No. 14 (Monomoy), Second District, Massachusetts. The active season on the Atlantic coast being over, the station was closed, but the keeper saw the steamer aground at half past 4 o'clock in the morning, went out to her in a sail-boat, and offered to bring the passengers ashore. As the steamer, however, lay still, and the sea was smooth, the passengers decided to remain on board. The next day the keeper went out again, and made arrangements to land the passengers on the following morning if the

ship was not floated the next day. Meanwhile, three steam-tugs had arrived from Boston, and a schooner had lightened part of the steamer's cargo, which enabled the tugs to pull her off the shoals on the morning of May 29.

May 27.—At 10 o'clock in the morning, the weather being cloudy, the wind blowing hard from the northeast, and the sea heavy, a fish-boat manned by two men and carrying eight passengers was trying to work her way into the harbor at Cleveland, Ohio, when her sails, which were old and rotten, gave way, and the craft thus disabled at once began drifting towards the rocky beach. The lookout of Station No. 8, Ninth District, half a mile distant, instantly gave the alarm, the crew sprang to the surf-boat, and were soon alongside of the fish-boat. Her anchor had been let go, but was not heavy enough to hold her or even retard her drift, and she was still going to leeward. The life-saving crew first took off her passengers and landed them, leaving the two men on board to manage the fish-boat, then returned and, after an hour's hard pulling, brought her around the pier into the river as far as the station.

May 27.—The crew of Station No. 10, Ninth District (Louisville), were busy from half past 1 in the day until 8 in the evening rendering valuable assistance to the river tow-boat W. W. O'Neil and the harbor tug Little Andy Fulton, which, in coming out of the Louisville and Portland Canal with a tow of eighteen empty barges and coal boats, were driven by the strong southwest wind onto the wing dam of the falls. The life-saving crew had immediately seen the disaster and put out in two boats to give aid.

May 29.—The British schooner Annie McVickar, of St. John, New Brunswick, from Boston, Massachusetts, for Campobello, New Brunswick, with a valuable cargo of household furniture, and carrying a crew of five men, stranded upon the southwest side of Browney Island, coast of Maine, at 9 o'clock at night, May 28, during the prevalence of a thick fog, the place where she struck being a mile and a quarter south of Station No. 3, First District, located upon Crumple Island. The station was closed for the summer season and the situation of the vessel was not known to the keeper until the fog lifted at noon the next day (29). The keeper assembled his men as quickly as possible and pulled over to where the schooner lay ashore for the purpose of rendering assistance. The schooner was found high and dry upon the rocks, and her people safe, they having landed without difficulty. The keeper could do but little with the force at his command, so he sent a telegraphic message to the commanding officer of the revenue steamer Woodbury, requesting the aid of that vessel. The cutter responded promptly to the call and made strong efforts to haul the schooner off, but without success, the schooner bilging and becoming a total wreck.

May 29.—A little after 3 o'clock in the morning, the weather being good and the sea full, the brig Daylight, of New Haven, Connecticut, bound to that place from Martinique, with a cargo of sugar, and having on board a crew of eight men, together with the captain's wife and daughter, stranded a hundred feet from shore, half a mile west of Station No. 11, Third District (Georgica, Long Island). It was at a time when the stations on the Atlantic seaboard are closed for active service, but the vessel was seen shortly after the stranding, from a hamlet west of Georgica Pond, by one of the station crew and two citizens, one of whom, Mr. Osborn, drove at once with his team to the station, in company with the others, hauled out the mortar cart with the apparatus to the scene of the wreck, and fired a line over the brig. Keeper Barnes, of Station No. 11, and Keeper Filer, of Station No. 8, had by this time

arrived, with several others, and proceeded to land the crew of the brig by the breeches-buoy. The mate came on shore among the first, and was guided to the telegraph office at Bridgehampton. Captain Hunting, the superintendent of the district, arrived at 8 o'clock and went on board the vessel, finding the captain's wife and daughter still there. The daughter was persuaded to go on shore, but the wife refused. That evening, however, she was taken ill, and the physician, who went on board in the breeches-buoy, insisted upon her landing, and she was accordingly put into the breeches-buoy, landed, and taken to a residence near by. The life-saving men divided into two watches for the night to look out for the vessel. The following morning a bank of sand had been formed by the surf inshore of the brig, so that at low water she could be reached dry-footed. The Coast Wrecking Company arrived later in the day, discharged a part of her cargo, and at high water got her afloat. The members of the two life-saving crews, and the high-spirited volunteers who assisted them, were on duty for three tides on this occasion, and deserve much credit for their voluntary labors.

May 29.—At half past 5 in the morning two boys, aged respectively 12 and 14 years, while hauling a seine on the lake side of the north pier at Muskegon, Lake Michigan, lost their balance and fell into the water. As neither could swim, they would certainly have been drowned but for the presence of the lookout of Station No. 8, Eleventh District (Muskegon), who was the only person on the pier, and who, running up with a heaving-line and a long pole, fished them out uninjured.

May 30.—In the afternoon two children, a girl of 10 and a boy of 6, fell off into the water from a plank they were attempting to cross on to the east pier at Oswego, and were rescued by the keeper and a surfman of Station No. 3, Ninth District, who jumped into the water and brought them to shore.

May 30.—An open fish-boat containing two young men, in the endeavor to pull up her anchor, capsized half a mile east of Station No. 6, Ninth District (Presque Isle, Erie, Pennsylvania). The station lookout saw the accident, and, giving the alarm, two surfmen shot out to the rescue in a dingey, got the men off the capsized boat, to which they were clinging, and brought them, together with the boat, to the station, where they were furnished with dry clothing and remained four hours.

May 30.—The schooner Rocket, of Manistee, Michigan, bound from that place to Charlevoix, with a load of shingles, and navigated by Capt. George Smith and his brother, sprung a leak and became water-logged between 1 and 2 o'clock in the morning, a mile and a half abreast of Frankfort, and about five miles south-southwest of Station No. 4, Eleventh District. It was rainy and dark at the time, with a fresh south wind. The disabled vessel drifted to within a couple of miles of the station, where she was discovered between 4 and 5 o'clock in the morning and taken in tow by the steam barge Acme, which also had in tow two other barges. At that time one of the station crew noticed something peculiar going on on board the Acme, but Keeper Mathews, looking through the glass, could only discern that she was lying broadside to the sea. Presently, however, her steam whistle sounded for assistance, and the keeper and his men at once ran out the surf-boat and started for her. When within half a mile of her they saw shingles floating, and presently the water-logged schooner came drifting away from her towards them. Upon arriving alongside the latter, the keeper and his men took in Captain Smith and his brother and rowed back with them to shore. The two men started for Frankfort to procure a tug, and after breakfast the life-saving crew went out in the surf-boat to the

Rocket and towed her into five fathoms water, where they anchored her. At 9 o'clock in the forenoon a tug arrived, and the life-saving crew having run a line from her to the wreck, and lifted the schooner's anchor, she was towed into Frankfort for repairs.

May 30.—At 10 o'clock in the morning the schooner Norma, of Benton Harbor, Michigan, trying to get into Muskegon Harbor, was being carried away into the lake by the strong current, when the lookout of Station No. 8, Eleventh District, flung a line to her from the pier with his heaving-stick, which enabled her crew to hold fast and make port without trouble.

May 30.—Two of the surfmen on the lookout at Station No. 8, Eleventh District (Muskegon, Lake Michigan), discovered, at about half past 8 in the evening, a sloop making awkward maneuvers in trying to get inside the harbor piers. The men at once put out to her in a small boat, and upon boarding her found her being handled by two inexperienced boys, who were in a state of great excitement, as there was a squall visibly approaching at the time. The life-saving men worked the sloop into the harbor. She had no name.

May 30.—At about 2 o'clock in the afternoon Keeper St. Peter, of Station No. 11, Eleventh District (Chicago), had his attention directed to a speck upon the lake several miles distant, which upon examination through the glass proved to be a boat (afterwards found to be named the Jeannette) containing three young men, which was being rapidly carried out into the lake, having become unmanageable in the strong southwest wind and heavy sea then prevailing. The boys had gone out for pleasure, and got away too far from shore to be able to effect their return in the stiffening wind and growing sea. The foremast of the boat had become unstepped, and their oars broken in the effort, and they finally drifted helplessly, and hoisted a red handkerchief on a pole as a signal of distress. The keeper, although this signal could not be seen at the station, divined the trouble and at once started in a sail-boat with two of his crew to the rescue, but a rising haze from the water soon obscured its surface, and the Jeannette was lost sight of. Unable to find the boat, the keeper ran back to the station, passing around the new breakwater to make sure that she had not run under its lee, and upon landing again and using the marine glass he again discerned her, but much farther out to sea. He then started out three of the surfmen in the sail-boat, remaining himself at the station for the purpose of indicating the course to them by the signal flags, but the mist cleared away, and the surfmen had now no difficulty in finding the Jeannette, and reached her about five miles distant from shore. She was then nearly half full of water, and could not have lived much longer in such a sea. The unfortunate boys were thoroughly exhausted with cold and exposure and with their efforts to make land. They were greatly terrified, and had almost given up hope of ever getting to shore again. They were taken into the sail-boat, which beat back to the station, where it arrived safely by 6 o'clock in the evening, with their boat in tow. The boat was made ship-shape by the surfmen, and the grateful youths were then able to make their way home up the river.

May 31.—In the forenoon the lookout of Station No. 3, Ninth District (Oswego), descried a small boat about five miles distant from the station, apparently drifting out, broadside to, into the lake, and the surf-boat was at once launched and started in pursuit. After a sturdy pull the crew came up with the boat, and found it contained three boys ranging from 9 to 11 years. They had lost an oar, and being unable to make headway had abandoned all hope of reaching the shore, the wind

being fresh and off the land. The crew took the boat in tow and brought it to the station.

June 1.—The crew of Station No. 3, Ninth District (Oswego), launched the surf-boat at 8 o'clock in the morning and brought ashore the keeper of the beacon-light on the new pier, he being unable to come in in his own boat against the wind, which was blowing hard. At 4 in the afternoon they rowed the light-keeper back again to his post.

June 2.—At 4 o'clock in the afternoon a young man named John Kramer, twenty-two years of age, fell off the harbor pier at Kenosha, Wisconsin, while fishing. His cries for help were heard by Surfman Mahoney, of Station No. 13, Eleventh District (Kenosha, Lake Michigan), who ran to his aid and found him clinging to the pier, but just on the point of letting go, being unable to maintain his hold longer. The stout surfer had a hard time to get him up on the pier, which was six feet high from the water, but stuck to the work and succeeded.

June 3.—At half past 6 in the morning one of the light-keepers at Chicago found the body of a woman floating in the lake at the south entrance of the harbor, and towed it to the dock of Station No. 11, Eleventh District. The body was in an advanced stage of decomposition. Keeper St. Peter pulled it out of the reach of the surf, and sent for the proper conveyance to have it taken away.

June 3.—A small schooner missed the harbor at Chicago between 1 and 2 o'clock in the day, and drifted along the breakwater apparently in a disabled condition. The keeper of Station No. 11, Eleventh District, at once ordered out the surf-boat, and the crew pulled to the breakwater, which they climbed, and found the vessel safe under its lee, but in want of a tug. The surf-boat crew then pulled back to the harbor and secured a tug, which towed the schooner into port.

June 3.—The schooner Oliver Mitchell, of and from Oswego, New York, arrived at Evanston, Illinois, on June 2, with a cargo of coal consigned to a party at the last-named place. She carried a crew of eight persons, all told. There was a light southerly breeze at the time she made fast to the wharf and commenced discharging, but through the day an easterly storm set in, which made the situation of the vessel a very grave one, as there was danger of her breaking adrift and driving onto a lee shore. It was almost impossible for her to make an offing without the assistance of a tug, but as there were no vessels of that class at hand and the danger was increasing hourly, the keeper of Station No. 12, Eleventh District (Grosse Point), half a mile distant to the north, proceeded to the spot at 1 o'clock in the morning, accompanied by the patrolman on duty at the time, and offered all the assistance in his power. There was no need of the services of the entire life-saving crew, but the two men were kept busy until daylight, when a tug arrived, in shifting the schooner's lines from time to time, in order to keep her in the safest position possible. The tug, however, could do nothing, as she was without extra lines, and the captain of the schooner was afraid to let go any of his lines lest the vessel should drive ashore before the steamer could get way on her. The steamer therefore left him and returned to Chicago. By half past 8 in the morning the wind had backed into the northwest and raised an ugly cross-sea, which threatened to sweep the schooner onto the beach if she attempted to hold on much longer. Accordingly, the two life-saving men sprang to the lines, ready to let them go, and at the right moment the fore-staysail was hoisted, the lines were cast off, and away she went, striking the bar with a heavy thud as she passed over it, but suffering no damage. Upon the return of the schooner to her berth, after the subsidence of the storm, her officers

made acknowledgment of the services of the men from the life-saving station, saying that to their assistance the escape of their vessel from wreck was in great measure due.

June 3.—At 8 in the morning the three-masted schooner, J. P. Decondres, of Grand Haven, from Charlevoix, Michigan, for Milwaukee, Wisconsin, with a cargo of cord-wood and railroad ties, stranded about one mile north of the life-saving station at the entrance to Milwaukee Harbor (No. 15, Eleventh District), and became a total wreck, her crew of six men and a passenger named Cortis being rescued by the life-saving crew. It appears from the reports of the occurrence that the vessel was bearing up for the harbor when her steering-gear became disabled by the heavy sea then running, and before she could be got under control she drove ashore in the breakers. The life-saving crew witnessed the accident, and it was at once proposed to go to the schooner's assistance in the surf-boat. A steam-tug was therefore hailed for the purpose of towing the boat to the wreck, but the captain declined to take the risk on account of the danger of swamping his vessel. He, however, agreed to ferry the life-saving crew, with their beach apparatus, across the river to the north bank, and when this was done the men started off at a brisk pace towards the vessel. Upon arriving on the ground it was found impossible to rig the apparatus by the ordinary method of setting up the hawser to the sand anchor, as the surf was breaking completely over the beach and gave the men no chance to work. The difficulty was soon overcome, however, for the keeper seized an ax and sprang onto the breakwater near which the schooner had stranded and cut a hole in the frame-work to secure the hawser and whip-line to after communication with the vessel should be established. This act was attended with much danger, for the gallant fellow was thrice swept backwards by the waves which swept over the entire structure. Upon the accomplishment of the feat the shore snatch-block was secured in the place thus prepared for it, and preparations were made for throwing a line to the vessel. It was a somewhat difficult matter loading the wreck-gun upon the surf-swept beach, but by holding the tarpaulin in position to prevent the water from dashing over the piece and drowning the charge, the gun was soon got in readiness for firing, the first shot dropping the line near the mizzenmast, right among the people on board. The whip-line and hawser were then rigged as quickly as possible, the first to land in the breeches-buoy being Mr. Cortis, the passenger. The crew of the vessel followed, one after the other, as fast as the apparatus could be worked, the last man reaching the beach at half past 9 o'clock, an hour and a half after the schooner struck. The shipwrecked people were immediately conducted to the station, furnished with dry clothing, and their wants properly cared for, the party remaining with the life-saving crew for five days, until arrangements could be made for their return to their homes in Michigan, across the lake. Within twelve hours after her stranding the schooner became a total wreck, although a portion of the cargo was saved. The life-saving crew subsequently recovered the schooner's anchors and chains and her spars and rigging, and turned them over to the captain.

June 4.—At 6 in the morning the schooner Hattie Earl, of and from Chicago, Illinois, for White Lake, Michigan, in ballast, in attempting to enter the harbor of Saint Joseph, Michigan, during a strong westerly gale, with a high sea, mistook the entrance on account of a recent change in the location of the harbor lights, of which the master was ignorant, and stranded about two hundred feet north of the north pier, at a point two hundred and fifty yards northwest of Station No. 10,

Eleventh District (Saint Joseph). The accident was witnessed by the crew of the station, who at once launched the surf-boat with the intention of pulling around outside to the schooner's assistance. Upon clearing the piers in the boat it was found, however, that the sea had driven the schooner so well up that she could be reached easier from the shore. The men therefore returned and boarded the vessel from the beach in a smaller boat, and in a few minutes landed the captain's wife and child and conducted them to the station, where they were properly cared for by the keeper's wife, the crew of the schooner, four in number, coming ashore at 8 o'clock in their own boat, having voluntarily remained on board until that time in order to secure everything about decks. The schooner was subsequently hauled off (June 8), by the United States revenue steamer Andrew Johnson, with the assistance of the life-saving crew, the men being almost continually engaged in the work until success crowned their efforts. The damage to the schooner was inconsiderable.

June 4.—At 2 o'clock in the morning of the day after the crew of Station No. 15, Eleventh District (Milwaukee, Wisconsin), performed such good service at the wreck of the schooner J. P. Decondres, the master of the schooner Milton, of Milwaukee, called at the station and requested the crew to relieve his men at the pumps for a few hours, the latter being much fatigued and exhausted by their labors in keeping the vessel afloat and getting her into port. He informed the keeper that his schooner had been overtaken by the gale of the day previous, while on her way from Detroit Harbor, Wisconsin, and sprung a leak. He had arrived in the harbor an hour previous, having fortunately fallen in with a steamer which towed him to port. The life-saving crew promptly responded to the call for their services, and upon reaching the vessel manned the pumps and kept them going until after daylight, having by that time succeeded in lowering the water in the hold several inches, and thus kept the leak under control until arrangements could be made for necessary repairs.

June 5.—Although the stations on the Atlantic coast were closed for the summer, and the crews were off duty, the keepers of Stations Nos. 1, 2, and 3, Fifth District (coast of Delaware), and several of the men belonging to their respective crews, rendered effective aid in saving the bark Jessie Goodman, of Ardrossan, Scotland, which stranded near midnight of June 4 on Cape Henlopen. The bark had called at the Delaware Breakwater for orders, with a lading of sugar from Cardenas, and, after receiving instructions to proceed to New York, was on her way out of the Delaware when she struck at the point above named, the men of the Life-Saving Service receiving early notice of the accident from the light-keeper and reaching the vessel at 2 o'clock in the morning (June 5). The bark had driven well up on the beach with the flood tide, and it was found necessary to remove a portion of the cargo in order to lighten her. This was accordingly done by the life-saving men and a party of wreckers, and in a few days the vessel was floated off in good condition, and towed to her destination by the steamer belonging to the Philadelphia underwriters stationed at the breakwater.

June 5.—The crew of Station No. 4, Tenth District (Ottawa Point, Lake Michigan), spent all the afternoon in looking for the body of the cook of a barge who had fallen overboard and been drowned a fortnight before, and whose corpse had been seen floating in the lake. It was picked up the next day, eight miles below the station.

June 7.—At 6 o'clock in the evening a scow with a man on board accidentally parted tow with a tug a quarter of a mile from the pier at

Manistee, Lake Michigan, and drifted into the breakers. The lookout of Station No. 5, Eleventh District, seeing the accident from the pier, ran to the station and gave the alarm. The surf-boat was at once launched and pulled into the breakers, the man was got on board, a line was run from the scow to a tug in waiting, and the surf-boat crew assisted to get the scow into the harbor, the work occupying two hours.

June 7.—As the schooner *M. Mangles* was beating up the coast of California, with a cargo of lumber, from a place called Rough and Ready, for San Francisco, against a strong northwest wind and a heavy sea, she missed stays in going about for an off shore tack, and stranded a few miles below Point Lobos, on the south side of the entrance to San Francisco Bay. The schooner was owned at San Francisco, and carried a crew of three men. The accident occurred at a little after 4 o'clock in the morning, and the vessel was soon afterwards discovered by the keeper of the life-saving station in that locality (No. 7, Twelfth District, Golden Gate Park), about two and a half miles north of where the schooner struck. As the regular crew of the station were not on duty, the house being closed for the summer season, and much time would be consumed in mustering enough men to handle the station apparatus, the keeper resolved to proceed without delay to the schooner and render what service he could single-handed. The tide was ebbing, and when the keeper arrived abreast of the vessel he saw at a glance that unless the people could be landed before the tide turned, their rescue would be attended with considerable risk. The crew were evidently alarmed at their situation, and the keeper shouted to them to keep cool and lower their boat and come ashore as quickly as possible. The schooner lay about eighty yards from the beach, and the men either did not understand him or were too badly frightened to heed what he said. At any rate the keeper's advice was not followed, and becoming impatient he plunged into the surf and gallantly swam off to the vessel. He at once had the yawl hoisted overboard and took charge of it, and landed the men one at a time, the boat being too small to carry all at one trip. The vessel soon afterwards began breaking up and became a hopeless wreck. The men remained on the ground long enough to save the cargo of lumber, as well as the sails and rigging, the keeper assisting in the work, and affording them subsistence and shelter at the station while thus employed, and finally obtaining for them conveyance to San Francisco.

June 8.—The sloop-rigged yacht *Circe*, of Cleveland, Ohio, with a party of four men on board, out for a pleasure cruise on Lake Erie, was dismasted at 1 o'clock in the afternoon about a mile outside of Cleveland Harbor. The crew of Station No. 8, Ninth District (Cleveland), discovered the accident immediately after its occurrence, and realizing at once that the disabled yacht could not return without assistance, they put off in the surf-boat and towed her safely into the harbor.

June 8.—The schooner *Maggie Thompson*, of Chicago, Illinois, carrying a crew of seven persons, all told, while getting under way from Hamlin, Michigan, where she had taken on board a cargo of lumber for Chicago, drifted ashore near the harbor piers, one mile south of Station No. 6, Eleventh District (Grand Point au Sable), at about 4 in the afternoon. The lookout at the station witnessed the accident, and at once reported it to the keeper, who ordered the surf-boat out, and the station crew proceeded immediately to the schooner's assistance. Fortunately the surf was not rough, and by 8 o'clock the same evening the life-saving crew succeeded in hauling the vessel off, and then, after

getting sail on her and seeing her safely on her way, the men returned homeward, reaching their station by half past 8.

June 9.—At 5 in the morning one of the patrolmen of Station No. 8, Ninth District (Cleveland, Ohio), reported at the station the discovery of the body of a woman floating in the lake about a mile to the westward of the harbor, which proved to be that of Mrs. E. Williams, of Cleveland. The life-saving crew proceeded at once to the spot in their boat, conveyed the corpse to the station, and reported the facts to the city authorities, who soon afterwards took it in charge.

June 9.—The crew of Station No. 11, Eleventh District (Chicago, Illinois), recovered the body of Robert C. Heringer, a young man who fell from the pier in a fit into the lake and never rose again.

June 10.—On this date the crew of Station No. 14, Eleventh District (Racine, Wisconsin), rescued a young man named George Swift, of Racine, from drowning in Lake Michigan. Mr. Swift had, it appears, rashly attempted to make the passage between North Point and Racine Harbor, a distance of seven miles, in a small skiff, during the prevalence of a strong northeasterly wind, with quite a rough sea, and in so doing the boat was swamped and capsized. He managed, however, to cling to the gunwale of the boat, with his head just above water, until succored by the life-saving crew, one of whom had discovered his perilous situation, with the aid of a glass, from the roof of the station. It was half past 12 in the day when the discovery was made, the boat then being about two and a half miles north of the harbor, out on the lake. Not a moment was lost by the station crew, and after a vigorous pull for half an hour against the wind and sea, the poor fellow was taken into the surf-boat, the men wrapping him in their coats as a protection from the keen, searching wind. Upon reaching the station, medical aid was at once summoned, pending the arrival of which the man was put to bed between warm blankets and proper steps taken for his recovery. The poor fellow was so far gone, however, that it was not until after the lapse of two hours of assiduous effort on the part of the physician that he was restored to a state of full consciousness. When this had been accomplished, and the condition of the man was such that he could be removed without risk, he was taken to his home. The life-saving crew afterwards went out again and recovered the boat, which by that time had drifted into the breakers, and hauled it up safely on the beach.

June 11.—The side-wheel steamer New Mary Houston, of Louisville, Kentucky, carrying a crew of sixty persons, all told, and bound from Cincinnati, Ohio, to New Orleans, Louisiana, with twenty passengers and a large miscellaneous cargo, collided, at about midnight of June 10, with the steamer Charles Morgan, on the Ohio River, about eighty miles above Louisville, the Morgan being bound up to Cincinnati. The Houston was badly crippled, but she succeeded in reaching Louisville the next morning at 10 o'clock. Her whistles for assistance soon brought the crew of Station No. 10, Ninth District (Louisville), alongside, also the tug-boat Wash. Gray. The life-saving crew went immediately to work and ran the steamer's hawser to the tug, thus enabling the latter to take the disabled vessel in tow to a ship-yard on the Indiana side of the river for repairs.

June 12.—At half past 5 o'clock in the afternoon, a small boy, six years old, was seen by one of the crew of Station No. 17, Eleventh District (Two Rivers, Wisconsin), to fall into the river about nine hundred feet from the station, and the surfman at once started in a skiff to the rescue, with two of his comrades, while the keeper ran to the spot by land. Before they could arrive, however, the boy was pulled out by some men

on the dock, very wet, but uninjured. The keeper took him home to his parents.

June 13.—The crew of Station No. 5, Eleventh District (Manistee, Lake Michigan), ran with the station force-pump to a house on fire about twenty rods to windward, and appear to have prevented a general conflagration of all the neighboring buildings by keeping up a steady stream upon the dwelling, thereby holding the fire in check until the town fire department could arrive to extinguish it.

June 13.—The help of a line cast with the heaving-stick by one of the crew of Station No. 8, Eleventh District (Muskegon, Lake Michigan), enabled a small schooner to enter the harbor at 9 o'clock in the morning, despite the strong current, which had foiled her previous effort.

June 13.—The schooner J. F. Tracy, of Chicago, Illinois, carrying a crew of seven persons, including the captain's wife, who acted as stewardess, while leaving the above-named port, shortly after 4 o'clock in the afternoon, on a trip to Muskegon, Michigan, for a cargo of lumber, came in contact with the new breakwater outside the harbor, and was so badly damaged that she sank soon afterwards while towing back for repairs, her people, with one exception, as will be shown hereafter, being taken off by the crew of Station No. 11, Eleventh District (Chicago). The following statement is obtained from the reports of the case: The weather was fair, with a light easterly breeze. As the schooner neared the new breakwater, about 5 o'clock, she sagged so far to leeward that it became necessary to put her about. The wind being too light, however, the attempt to tack her failed. An effort was therefore made to wear her. This also failed, and a moment later the schooner went crashing against the breakwater, staving her bow in to the water-line. Two steam-tugs, which were fortunately in the vicinity, at once took her in tow and ran at full speed for the harbor, the captain's wife being transferred to one of the tugs for safety in case the schooner should sink in deep water. Meantime the accident had been reported by the lookout at the station, and the life-saving crew hurriedly manned their boat and pulled out to render assistance. The crew of the schooner made light of the damage to their vessel, some of them even laughing at the station men for their pains. Notwithstanding this, the surf boat followed along on the port side of the vessel until she was inside the piers and abreast of the station, when the schooner suddenly settled head first and then rolled over on her port side and sank in sixteen feet of water, the life-saving crew narrowly escaping, by quickly sheering their boat, being drawn under by the schooner's spars as she went over. But for the gravity of the situation the laugh might now have been on the other side. The life-saving crew were on the alert, and at once pulled to the aid of one of the men, who in the excitement of the moment had jumped overboard and was floundering in the river. A dog belonging to the vessel was also rescued at the same time. The rest of the crew, with the captain, were clinging to the schooner's starboard quarter, which was all that appeared of her above water. They were all taken into the boat and landed at the station, the life-saving crew sharing their supper with them and then assisting in stripping the vessel of all articles within reach that could be saved. The keeper also established a special night patrol in the vicinity, to warn passing vessels of the danger of running onto the wreck in the darkness. It was an extremely fortunate circumstance that the vessel did not sink in deep water, as in that case there would probably have been a lamentable loss of life. The life-saving crew subsequently assisted from day to day in the operations which resulted in the recovery and restoration of the vessel to her owners (June 22).

June 14.—On this date the crew of Station No. 6, Eleventh District (Grand Point au Sable, Lake Michigan), again rendered valuable service to the schooner Maggie Thompson, of Chicago, Illinois, which vessel, since her relief by the same crew on the evening of June 8, as previously recorded, had prosecuted her voyage to Chicago and was now on her way back to Hamlin, Michigan, for another cargo of lumber. The weather was foggy, and in consequence the schooner missed the harbor and stranded at 9 o'clock in the morning at a point about ten rods south of the station. The schooner was discovered through the fog by the keeper, who at once mustered his men and went off in the surf-boat, arriving on board fifteen minutes after she struck. The schooner had no boat fit for carrying out an anchor to heave the vessel off by, so the work was performed by the life-saving crew in the surf-boat, and in a short time, by hard heaving, the vessel was safely afloat and enabled to find her way into port. The prompt action of the station crew in this case saved the vessel without doubt, for two hours later the surf had become so rough that the schooner must have gone to pieces.

June 15.—One of the crew of Station No. 9, Eleventh District (Grand Haven, Michigan), made warning signals to the hooker Laura Johnson, of South Haven, Michigan, at 9 o'clock in the evening, and prevented her from running onto the sunken crib at the end of the south pier.

June 18.—On this date, between 3 and 4 in the afternoon, as a pleasure party, consisting of two women and a man, were out rowing in Buffalo Harbor, abreast of Station No. 5, Ninth District, one of the women fell overboard, and would have drowned but for the vigilance of the lookout at the station, who, upon witnessing the accident, sprang into a boat and succeeded in rescuing her.

June 18.—The schooner Mocking Bird, of Sheboygan, Wisconsin, bound from White Fish Bay, Wisconsin, to Chicago, Illinois, with a cargo of railroad ties and cedar posts, and carrying a crew of six men, encountered a strong southwesterly gale, with a very rough sea, which caused her to labor so heavily that she sprung a leak and became waterlogged. This happened at about 2 in the afternoon, the vessel then being five miles to the southward and eastward of Sheboygan. Her signal of distress, as she rolled and tossed in the offing, was quickly discovered by two of the crew of Station No. 16, Eleventh District, at the entrance to Sheboygan Harbor, and the life-saving crew proceeded at once to her assistance. On the way out they fell in with the steam-tug Kitty Smoke, and got her to tow them to the vessel. Upon arriving alongside it was found that the schooner had four feet of water in the hold, and that her crew were almost exhausted by their labors in trying to keep the vessel free. The pumps were therefore manned by the life-saving crew and the tug took the schooner in tow. Upon reaching the harbor the schooner was grounded near the station to prevent her from settling in deep water. The life-saving crew continued their good work, and after removing part of the deck load, which made the vessel list heavily on one side, and thus righting her, the pumps were again started with vigorous strokes, so that by half past 6 o'clock the same evening the schooner was free of water and perfectly safe, the men then returning to their station.

June 19.—At 8 o'clock in the morning, a fishing boat plying out of Fairport, Ohio, was dismasted during the prevalence of a strong westerly breeze while returning from her nets on Lake Erie. The accident was discovered immediately after its occurrence by the crew of Station No. 7, Ninth District (Fairport), who at once put off to the assistance of the fishermen, and proceeded to tow their boat in for the harbor, about

two miles distant to windward. They were met by a harbor tug, the captain of which kindly offered to tow both boats in, and thus relieved the life-saving crew of a tedious and laborious task.

June 19.—On this date the crew of the floating life-saving station at Louisville, Kentucky (No. 10, Ninth District), added three more names to the long list of lives saved since the establishment of the station at that point. The circumstances of the case were as follows: A family named Johnson, consisting of the husband, wife, and a son ten years old, undertook the journey down the Ohio River from Parkersburg, West Virginia, to Evansville, Indiana, in a small, deeply laden skiff. Louisville had been reached without accident, and the adventurous party were about to attempt the passage of the falls by what is known as the Indiana Chute, when, through Mr. Johnson's unfamiliarity with the dangers of the locality, the boat was carried out of its intended course by the treacherous current and swept towards the cross-dam, the descent of which would involve the certain destruction of the entire family. Fortunately, the perilous situation of the frail craft was discovered by the lookout at the station. The life-saving crew sprang instantly to their posts, and three of the men started out in boat No. 1, with the utmost speed, to intercept the skiff before it reached the dam, while boat No. 2 was manned and held in reserve in case of accident to its consort. By tremendous effort the rescuing party reached the skiff just in time to prevent it from dashing over the dam, and succeeded in towing it towards the Kentucky Chute, where the descent was made in safety, and the little party piloted clear of danger below the falls and sent on their way rejoicing. The gallant conduct of the station crew on this occasion excited the highest commendations from the local press, and it was no doubt highly deserved, for had it not been for their timely aid, the entire party would have been swept over the dam and drowned.

June 19.—At 2 o'clock in the afternoon, the second boat of Station No. 10, Ninth District (Louisville), was manned by a part of the station crew, who rowed about a mile and a quarter from the station, and spent considerable time in ineffectually dragging for the body of a drowned boy.

June 20.—The British schooner *Leila B.*, of and from Saint John, New Brunswick, for Rockport, Maine, with a cargo of wood, and carrying a crew of four men, was wrecked upon the south side of Shot's Island, coast of Maine, at 4 o'clock in the morning of the 19th, the disaster being caused by thick weather and the strong current, which swept the vessel onto the rocks before their contiguity was discovered. The life-saving station on Cross Island (No. 2, First District), three-quarters of a mile distant, was closed for the season, but as soon as the keeper learned of the disaster, the next day (June 20), he proceeded as quickly as possible to Shot's Island with three of his old crew, to render aid if necessary, arriving at the wreck at 2 in the afternoon. The schooner had then broken up and was a total wreck, her crew having, with the assistance of some miners employed upon the island, saved everything possible, and were then ready to leave, but were without any means of conveyance. The keeper therefore went off and obtained a small craft, upon which the wrecked crew engaged passage for Saint John, taking all the property they had saved with them.

June 20.—At daylight the keeper of Station No. 7, Twelfth District, about a mile south of Point Lobos, near the entrance to San Francisco Bay, California, after patrolling the beach all night in the vicinity of his station on the lookout for any survivors of the crew of the steamer *Escambia*, of Liverpool, England, which had sunk the evening before,

about seven miles from land, when a few hours out from San Francisco on a voyage to Saint Vincent, Portugal, found four men several miles south of the station, who had just struggled ashore after their boat had swamped in the surf, one of them being the captain and another the engineer of the ill-fated vessel. They were the only survivors of a crew of over twenty men, and when met by the keeper were in a wretched condition from the sufferings they had undergone, both mentally and physically, during the terrible night, while buffeting about at the mercy of the waves. The keeper was without assistance, his crew being off duty and the station closed for the season, but procuring a team as quickly as possible, he conducted the poor fellows to the station and there ministered to their pressing wants, furnishing them with dry clothing from his own scanty wardrobe, and then, when sufficiently refreshed and able to travel, he took them to comfortable quarters in San Francisco, where they could receive all the attention their condition required. Upon returning to the beach he resumed the search, in the hope of recovering the bodies of the lost members of the crew, but up to the time of his report, several days after the disaster, none of the bodies had been found.

June 21.—Service was rendered by the crew of Station No. 1, Ninth District (Big Sandy Creek, Lake Ontario), who launched the surf-boat, pulled out to the schooner William Gilbert, and by informing her captain in regard to the buoys in the channel, enabled him to safely shape his course into the harbor.

June 21.—At 2 o'clock at night two patrolmen of Station No. 7, Eleventh District (Ludington, Michigan), saw a man in a small skiff drifting away into the lake, and at once launched an adjacent boat, pulled out, and brought him ashore. He proved to be a drunken Russian, unable to give his name or speak the English language. As the wind was off shore, he would have been carried out into Lake Michigan before daylight, and probably lost, but for his rescuers.

June 22.—On this date the crew of Station 11, Eleventh District (Chicago, Illinois), after completing their labors in assisting to raise the schooner J. F. Tracy, sunk opposite the station, as previously recorded, saved a man from drowning in the outer harbor under the following circumstances: At 10 o'clock at night a small sloop-rigged boat, named the Louise, of Chicago, with two men on board, in attempting to pass out of the harbor into the lake in front of the city, was overtaken by a severe squall, which drove her to leeward, afoul of the row of piles on the inner side of, and a few feet distant from, the crib-work of the breakwater forming the harbor. Both men were much excited, and one of them, named Dalton, in his effort to stay the vessel's further progress as she drifted along before the wind, seized one of the piles, but the momentum of the boat was so great that she passed from under him and quickly out of his sight in the darkness, leaving him clinging to the pile. The man's cries for help and a lantern signal made by the watchman on the breakwater attracted the attention of the lookout at the station, about five hundred yards distant across the harbor, who quickly aroused his comrades from their slumbers, and all hands proceeded at once in the surf-boat to his relief, guided to the spot by the sound of his voice. After rescuing the poor fellow from his perilous situation and learning the particulars of the accident, the station crew set out in search of his comrade, it being supposed that the sloop had capsized and drifted out into the lake. After a search of thirty minutes the sloop was found securely moored to the breakwater about half a mile south of the harbor, with the man for whom they were in

search on board of her. The sloop was not in a very safe place, and the life-saving crew proposed towing her back into the harbor, but the man on board refused their assistance. As he insisted upon remaining where he was the rest of the night, all that remained for the station crew to do was to land the man they had rescued, which done they returned to the station. Fortunately for the man on the sloop, the wind soon moderated and he was exposed to no further danger.

June 24.—At a little after 7 o'clock in the morning, Surfman James Beauvais, of Station No. 8, Eleventh District (Muskegon, Lake Michigan), was going in a small boat to the mouth of the harbor, and in passing an old building which projected some fifteen feet over the water, its floor being about ten inches above the surface, he saw, moving with a swift current which ran under the building, what at first appeared to be merely a weft of clothing just risen to view, but in which he saw, an instant later, the foot of a child. Action would have been in vain a minute later, but with admirable presence of mind the bold surfman instantly dived from his boat under the building, whither the object of his effort had been swept, and emerged presently with a little boy, four years of age. The child was more dead than alive, but was properly cared for and soon restored to good condition.

June 25.—The steam-tug Frank Canfield, of Manistee, Michigan, while lying at her wharf at that place, across the river from Station No. 5, Eleventh District (Lake Michigan), took fire at 3 o'clock in the morning, and but for the vigilance and activity of the station crew would in all probability have been totally destroyed. The fire was discovered by the surfman on patrol, who at once gave the alarm. The life-saving crew promptly responded, and hastened across in their boat with all the buckets they could muster, and by their exertions succeeded in confining the fire to the cabin and upper works of the vessel, the damage being estimated at about one-fourth of her value. The grateful owners recognized the keeper's services by presenting him with a silver watch.

June 25.—At 11 o'clock of the same date (Sunday) on which the crew of Station No. 5, Eleventh District (Manistee, Michigan), extinguished the fire on board the tug Frank Canfield, a young man named August Snider, while going on board the steamer John A. Dix, to which vessel he belonged, fell overboard, and would have drowned but for the gallantry of Henry Finch, keeper of the station. It appears that Finch was returning to the station from the post-office, when his attention was drawn to an excited crowd upon the river bank. Hastening to the spot, he saw the young man just as he was going down for the third time. The keeper at once divested himself of coat, vest, and boots and plunged into the swift-running stream, and by a few vigorous strokes reached the spot where the youth had disappeared beneath the surface, and diving, brought him up from the bottom. By dexterous movement he held the poor fellow's head above water until the bank was reached, where both were quickly lifted out by the bystanders. The young man was to all appearances dead, but the prompt application by his brave rescuer of the process of artificial respiration, as practiced in the Life-Saving Service for the restoration of apparently drowned persons, was effectual, and in fifteen minutes he was brought to. He was carefully nursed for a short time, and was soon all right.

June 26.—The sloop yacht Ella, of Oswego, New York, with an excursion party of twelve on board, including five ladies, left Little Salmon Creek, New York, for a pleasure cruise on Lake Ontario at about 2 o'clock in the afternoon. The excursionists had not gone far when the weather became so squally and boisterous that they were

compelled to bear up for the harbor again. As the yacht reached the creek under easy sail a strong outsetting current was encountered, which carried her to leeward of the entrance and threatened to sweep her onto the rocks. The anchor was quickly dropped, but it failed to hold, and the vessel would have gone ashore but for the prompt action of the crew of Station No. 2, Ninth District, situated on the easterly side of the entrance. Four of the station crew sprang into the dingey to board the vessel, but in going out through the surf an oar broke and the boat swamped. Not to be deterred in their effort to board the vessel, two of the men sprang overboard and reached the sloop by swimming, while the other two guided the boat back to the beach. With the aid of the two surfmen, the people in the yacht succeeded in checking her further drift shoreward, and sail was at once hoisted again for the purpose of working back to the mouth of the creek. Just as they were in the act of tacking, however, the mast broke off about eighteen feet above the deck, and the yacht became disabled. This accident brought the rest of the life-saving crew alongside in the surf-boat. The first thing was to land the passengers, and when this had been done an extra anchor was taken off, and the men proceeded to warp the yacht into the harbor, where she was safely moored under the lee of the jetty for the night. The next day the station crew assisted in setting a close-reefed mainsail and staysail to the stump of the mast, and she was thus enabled to return to Oswego for repairs.

June 28.—About 5 o'clock in the afternoon, a little boy, 6 years old, fell off the pier at Milwaukee, and was saved from drowning by one of the crew of Station No. 15, Eleventh District (Milwaukee, Lake Michigan).

June 29.—A young man, making an excursion around Lake Ontario in a canoe, left Sodus Point, New York, on June 28, and after a perilous passage with a very fresh breeze from the northeast, arrived in an exhausted condition, at 1 o'clock at night on the 29th, at Station No. 3, Ninth District (Oswego, Lake Ontario), and was cared for, and furnished food and shelter until 3 o'clock in the afternoon of the next day, when he resumed his voyage.

June 30.—At half past 4 in the afternoon the lookout at Station No. 10, Ninth District (Louisville, Kentucky), discovered a small skiff, with one man in it, in danger of going over the cross-dam of the Ohio Falls. Boat No. 2 was instantly launched, and the crew put off to the man's rescue, reaching him just in time to save him from going over, and towing the skiff out of the influence of the strong current. The man had been somewhat intoxicated, but the fright he got had the effect of sobering him pretty effectually.

ERRATUM.—The statement of service at the wreck of the schooner *Aurora*, on November 11, appears previously by error under the date of November 10.

TABLE OF WRECKS

WITHIN THE FIELD OF OPERATIONS OF THE LIFE-SAVING SERVICE.

SEASON OF 1881-1882.

LIFE-SAVING SERVICE.—TABLE

DISTRICT No. 1—EMBRACING COASTS

Date.	Place.	No. of station.	Name of vessel.	Where owned,	Master.	Tonnage.
1881.						
Aug. 2	Brown's Ledges	5	Sc. Watchful.....	Providence, R. I. ..	Gill	139
Aug. 3	Near South Breaker, two miles east southeast of station.	5	Sc. John S. Ingraham.	Rockland, Me.....	Packard ..	293
Aug. 7	Northeast of South Breaker, one and a half miles east of station.	5	Open Boat*	Bangor, Me	Wilson.....	.....
Sept. 26	Burnt Island Ledge	5	Brig Maria W. Norwood.	Camden, Me	Macgone..	477
Sept. 28	South side of Little Cranberry Island.	4	Sc. Whapper-Knocker.	Bucksport, Me....	Miles .....	.....
Oct. 2	One mile south of station...	7	Sailboat	Rye, N. H.....	Johnson ..	5
Oct. 5	Southside of Baker's Island.	4	Sc. Clement.....	Machias, Me.....	Peasley ...	45
Oct. 6	Off Quoddy Head	1	Sc. Eclipse.....	Eastport, Me	Leighton..	50
Oct. 8	Allen's Rock, Seal Harbor..	5	Sc. Northern Light ..	Boothbay, Me.....	Brown	54
Oct. 15	Ledge off Stanley's Beach, south side of Sutton's Island.	4	Sc. Trial†	Truro, N. S	Hill	41
Oct. 22	Three-quarters of a mile west of station.	5	Sc. J. H. Eells†.....	Camden, Me	Eells.....	144
Oct. 24	South side of Little Cranberry Island.	4	Sc. Helen R. Law†..	Gloucester, Mass ..	Sloan	59
Oct. 24	Northeast point of White Head Island.	5	Sc. Laurel†	Ellsworth, Me ...	Bennet....	80
Oct. 26	West end of Little Cranberry Island.	4	Sc. Banner.....	do	Bickford ..	30
Oct. 26	Hay Island Reef.....	5	Sc. Lyra	Deer Isle, Me	Greenlough	111
Oct. 26	do	5	Sc. Marcellus	Ellsworth, Me ...	Remmick ..	97
Oct. 27	Quoddy Bay	1	Sc. Idlewild†.....	Lubec, Me	Pike	67
Oct. 30	Baker's Island Bar	4	Sc. Procter Brothers.	Gloucester, Mass ..	Swim	77
Nov. 14	Long Point, Spruce Head ..	5	Sc. C. W. Dexter	Calais, Me	Holmes ...	92
Nov. 26	Off Quoddy Head.....	1	Sc. Virginia.....	Lubec, Me	Ackley ...	200
Nov. 29	Libby Island, near light-house.	2	Sc. Napoleon.....	Boston, Mass	Godfrey...	64
Nov. 29	North side of Little Cranberry Island.	4	Sc. Nesbit	Windsor, N. S	Bradshaw ..	440
Nov. 29	Spruce Head Island, Seal Harbor.	5	Sc. Ann.....	Boston, Mass	Stratan ...	108
Dec. 8	Allen's Rock, Seal Harbor..	5	Sc. Freeman	Ellsworth, Me....	Torry	23
Dec. 13	Four miles east of station...	3	Sc. Vascello†.....	Maitland, N. S....	McComlus ..	138
1882.						
Jan. 2	Green Island Ledge, four miles east of station.	3	Sc. Sea Foam.....	St. John, N. B.....	Owens	69
Jan. 9	Northwest side of Baker's Island.	4	Brig Shamrock	Charlottetown, P. E. I.	Daigle	249
Jan. 11	Pulpit Rock, four miles north-northeast of station.	7	Sc. Charles S. Tappan	Gloucester, Mass ..	McIntyre ..	72
Jan. 23	Muscle Ridge Channel, two miles northeast of station.	5	Sc. Bucco	St. John, N. B.....	Williams...	145
Jan. 23	Muscle Ridge Channel, two miles northeast of station.	5	Sc. George Shattuck	Waldoborough, Me.	Hart	61
Jan. 28	Off Liberty Cove, Campo Bello, N. B.	1	Sc. Lucy Neal	Eastport, Me	Robinson ..	10
Jan. 28	Rocky Hill Point, northeast part of White Head Island.	5	Sc. Lizzie K	St. John, N. B.....	Kyffin.....	99

* Boat belonged to schooner Vicksburg, of Bangor, Me.

† No assistance required of life-saving crew.

OF WRECKS, SEASON OF 1881-'82.

OF MAINE AND NEW HAMPSHIRE.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
Saco, Me	Tenant's Harbor, Me.		\$6,000		\$6,000	\$6,000	4	4			
Boston, Mass ..	Rockland, Me.		15,000		15,000	15,000	8	8			
Seal Harbor, Me.	Cruising		50		50	50	2	2			
Boston, Mass ..	Camden, Me ..		15,000		15,000	15,000	8	8			
Fishing Ground	Little Cranberry Island Harbor.	Fish	200	\$50	250	250	2	2			
Rye Harbor, N. H.	On pleasure trip		300		300	300	1	1			
Jonesport, Me	Rockport, Me..	Wood and piling.	800	300	1,100	1,100	3	3			
Dennysville, Me	Rockland, Me.	Wood	1,500	150	1,650	1,440	8	8			
Calais, Me.	Salem, Mass ..	Lumber ..	1,000	1,000	2,000	2,000	2	2			
Five Islands, N. S.	Boston, Mass ..	Potatoes and fish.	1,000	1,000	2,000	2,000	4	4			
Dover, N. H. ...	Camden, Me ..		8,000		8,000	8,000	3	3			
Gloucester, Mass.	Fishing		5,150		5,150	5,150	11	11			
Boston, Mass ..	Bangor, Me ..		1,500		1,500	1,500	3	3			
Gouldsboro', Me.	Cranberry Isles, Me.		500		500	500	2	2			
Bangor, Me ..	Boston, Mass ..	Lumber ..	1,000	2,600	3,600	3,400	5	5			
Ellsworth, Me	do	do	2,000	1,400	3,400	3,800	4	4			
New York, N. Y.	Lubec, Me ..	Groceries, provisions and coal.	2,000	2,500	4,500	4,200	4	4			
Brown's Bank.	Cranberry Island Harbor, Me.	Fish	6,000	500	6,500	6,200	12	12			
Calais, Me.	Boston, Mass ..	Lumber ..	2,000	1,200	3,200	3,200	4	4			
Portsmouth, N. H.	Lubec, Me ..		4,000		4,000	3,800	5	5			
Moncton, N. B.	Boston, Mass ..	Bark	900	250	1,150	1,150	5	5		3	3
Windsor, N. S. .	New York	Rock plaster.	20,000	1,000	21,000	20,580	420	10	10		
Boston, Mass ..	Franklin, Me ..	General ..	4,000	4,000	8,000	6,000	2,000	4	4		
Southwest Harbor.	Portland, Me ..	Fish	800	700	1,500	1,500		2	2		
Parrsborough, N. S.	Boston, Mass ..	Coal	5,040	240	5,240	200	5,040	6	6		
Bath, Me	St. John, N. B.		2,500		2,500	2,500		4	4		
Boston, Mass ..	Calais, Me ..		8,000		8,000	6,000	2,000	8	8	3	3
Fishing Ground	Portsmouth, N. H.	Fish	7,000	200	7,200	5,500	1,700	14	14	2	2
New York ...	St. John, N. B.	Coal	3,000	1,200	4,200	4,150	50	8	8		
Boston, Mass ..	Belfast, Me ..	General ..	1,200	2,000	3,200	2,900	300	6	6		
Cutler, Me.	Fishing		250		250	205	45	3	3		
St. John, N. B. .	New York	Lumber ..	3,000	1,000	4,000	4,100	800	5	5		

† Not wrecked but in perilous position from which life-saving crew extricated her.

§ No assistance rendered by life-saving crew.

LIFE-SAVING SERVICE.—TABLE

DISTRICT No. 1—EMBRACING COASTS

Date.	Place.	No. of station.	Name of vessel.	Where owned,	Master.	Tonnage.
1881.						
Aug. 2	Brown's Ledges	5	Sc. Watchful.....	Providence, R. I. .	Gill	139
Aug. 3	Near South Breaker, two miles east southeast of station.	5	Sc. John S. Ingraham.	Rockland, Me.....	Packard ..	293
Aug. 7	Northeast of South Breaker, one and a half miles east of station.	5	Open Boat*	Bangor, Me	Wilson.....	
Sept. 26	Burnt Island Ledge.....	5	Brig Maria W. Norwood.	Camden, Me	Macgone..	477
Sept. 28	South side of Little Cranberry Island.	4	Sc. Whapper-Knocker.	Bucksport, Me....	Miles	
Oct. 2	One mile south of station...	7	Sailboat	Rye, N. H.....	Johnson ..	5
Oct. 5	Southside of Baker's Island.	4	Sc. Clement.....	Machias, Me.....	Peasley ...	45
Oct. 6	Off Quoddy Head	1	Sc. Eclipse.....	Eastport, Me	Leighton..	50
Oct. 8	Allen's Rock, Seal Harbor..	5	Sc. Northern Light ..	Boothbay, Me.....	Brown	54
Oct. 15	Ledge off Stanley's Beach, south side of Sutton's Island.	4	Sc. Trial†	Truro, N. S	Hill	41
Oct. 22	Three-quarters of a mile west of station.	5	Sc. J. H. Eells†.....	Camden, Me	Eells	144
Oct. 24	South side of Little Cranberry Island.	4	Sc. Helen R. Law†..	Gloucester, Mass ..	Sloan	59
Oct. 24	Northeast point of White Head Island.	5	Sc. Laurel†	Ellsworth, Me ...	Bennet.....	80
Oct. 26	West end of Little Cranberry Island.	4	Sc. Banner.....	do	Bickford ..	30
Oct. 26	Hay Island Reef.....	5	Sc. Lyra	Deer Isle, Me	Greenlough	111
Oct. 26	do	5	Sc. Marcellus	Ellsworth, Me ...	Remmick ..	97
Oct. 27	Quoddy Bay	1	Sc. Idlewild†.....	Lubec, Me	Pike	67
Oct. 30	Baker's Island Bar	4	Sc. Procter Brothers.	Gloucester, Mass ..	Swim	77
Nov. 14	Long Point, Spruce Head...	5	Sc. C. W. Dexter	Calais, Me	Holmes ...	92
Nov. 26	Off Quoddy Head.....	1	Sc. Virginia.....	Lubec, Me	Ackley ...	200
Nov. 29	Libby Island, near light-house.	2	Sc. Napoleon.....	Boston, Mass	Godfrey...	64
Nov. 29	North side of Little Cranberry Island.	4	Sc. Nesbit	Windsor, N. S	Bradshaw ..	440
Nov. 29	Spruce Head Island, Seal Harbor.	5	Sc. Ann.....	Boston, Mass	Stratan ...	108
Dec. 8	Allen's Rock, Seal Harbor..	5	Sc. Freeman	Ellsworth, Me.....	Torry	23
Dec. 13	Four miles east of station...	3	Sc. Vascelloſ.....	Maitland, N. S....	McComlus ..	138
1882.						
Jan. 2	Green Island Ledge, four miles east of station.	3	Sc. Sea Foam.....	St. John, N. B.....	Owens	69
Jan. 9	Northwest side of Baker's Island.	4	Brig Shamrock	Charlottetown, P. E. I.	Daigle	249
Jan. 11	Pulpit Rock, four miles north-northeast of station.	7	Sc. Charles S. Tappan	Gloucester, Mass ..	McIntyre ..	72
Jan. 23	Muscle Ridge Channel, two miles northeast of station.	5	Sc. Bucco	St. John, N. B.....	Williams..	145
Jan. 23	Muscle Ridge Channel, two miles northeast of station.	5	Sc. George Shattuck	Waldoborough, Me.	Hart	61
Jan. 28	Off Liberty Cove, Campo Bello, N. B.	1	Sc. Lucy Neal	Eastport, Me	Robinson ..	10
Jan. 28	Rocky Hill Point, northeast part of White Head Island.	5	Sc. Lizzie K	St. John, N. B.....	Kyffin.....	99

* Boat belonged to schooner Vicksburg, of Bangor, Me.

† No assistance required of life-saving crew.

OF WRECKS, SEASON OF 1881-'82.

OF MAINE AND NEW HAMPSHIRE.

Where from.	Where bound.	Cargo.	Estimated value of vessel	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
Saco, Me	Tenant's Harbor, Me.		\$6,000		\$6,000	\$6,000		4	4			
Boston, Mass ..	Rockland, Me.		15,000		15,000	15,000		8	8			
Seal Harbor, Me.	Cruising		50		50	50		2	2			
Boston, Mass ..	Camden, Me		15,000		15,000	15,000		8	8			
Fishing Ground	Little Cranberry Island Harbor.	Fish	200	\$50	250	250		2	2			
Rye Harbor, N. H.	On pleasure trip		300		300	300		1	1			
Jonesport, Me.	Rockport, Me.	Wood and piling.	800	300	1,100	1,100		3	3			
Dennysville, Me	Rockland, Me.	Wood	1,500	160	1,660	1,440	\$220	3	3			
Calais, Me	Salem, Mass	Lumber	1,000	1,000	2,000	2,000		2	2			
Five Islands, N. S.	Boston, Mass	Potatoes and fish.	1,000	1,000	2,000	2,000		4	4			
Dover, N. H ...	Camden, Me		8,000		8,000	8,000		3	3			
Gloucester, Mass.	Fishing		5,150		5,150	5,150		11	11			
Boston, Mass ..	Bangor, Me		1,500		1,500	1,500		3	3			
Gouldsboro', Me.	Cranberry Isles, Me.		500		500	500		2	2			
Bangor, Me	Boston, Mass	Lumber	1,000	2,600	3,600	3,400	200	5	5			
Ellsworth, Me.	do	do	2,000	1,400	3,400	3,300	100	4	4			
New York, N. Y	Lubec, Me	Groceries, provisions and coal.	2,000	2,500	4,500	4,200	300	4	4			
Brown's Bank ..	Cranberry Island Harbor, Me.	Fish	6,000	500	6,500	6,200	300	12	12			
Calais, Me	Boston, Mass	Lumber	2,000	1,200	3,200	3,200		4	4			
Portsmouth, N. H.	Lubec, Me		4,000		4,000	3,800	200	5	5			
Moncton, N. B ..	Boston, Mass	Bark	900	250	1,150		1,150	5	5		3	3
Windsor, N. S. ..	New York	Rock plaster.	20,000	1,000	21,000	20,580	420	10	10			
Boston, Mass ..	Franklin, Me	General	4,000	4,000	8,000	6,000	2,000	4	4			
Southwest Harbor.	Portland, Me	Fish	800	700	1,500	1,500		2	2			
Parrsborough, N. S.	Boston, Mass	Coal	5,000	240	5,240	200	5,040	6	6			
Bath, Me	St. John, N. B.		2,500		2,500	2,500		4	4			
Boston, Mass ..	Calais, Me		8,000		8,000	6,000	2,000	8	8		3	3
Fishing Ground	Portsmouth, N. H.	Fish	7,000	200	7,200	5,500	1,700	14	14		2	2
New York	St. John, N. B.	Coal	3,000	1,200	4,200	4,150	50	8	8			
Boston, Mass ..	Belfast, Me	General	1,200	2,000	3,200	2,900	300	5	5			
Cutler, Me	Fishing		250		250	205	45	3	3			
St. John, N. B. ..	New York	Lumber	3,000	1,600	4,600	4,100	500	5	5			

‡ Not wrecked but in perilous position from which life-saving crew extricated her.
§ No assistance rendered by life-saving crew.

DISTRICT No. 1—EMBRACING COASTS OF

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1882.						
Feb. 5	Crowell's Large Bar, one mile north-northeast of station.	1	Sc. White Foam	Gloucester, Mass.	Landrey ..	9
Feb. 5	West side of Quoddy Bay, one mile north-northwest of station.	1	Sc. M. L. St. Pierre ..	St. John, N. B.	Haley	98
Feb. 22	Pomps Island, four and a half miles northwest of station.	3	Sc. Essex	Machias, Me.	Beal	21
Apr. 18	Sheep Island Ledge, eight miles northeast of station.	5	Sc. Frank Norton ..	Rockland, Me.	Bird	125
Apr. 20	Mill Cove, Seal Harbor	5	Sc. Cocheeo	New York	Seward ...	220
Apr. 22	Entrance to Seal Harbor, near Burnt Island Point.	5	Sc. Forester	Ellsworth, Me.	Young	55
May 4	Head of Seal Harbor	5	Sl. Northern Light..	Portland, Me.	Hamilton ..	60
May 21	Carrying Point Cove	1	Sc. Paragon	Eastport, Me.	Aylward ..	52
May 28	Southwest part of Browney Island.	3	Sc. Annie McVicar†	St. John, N. B.	Douglas...	117
June 19	South side of Shott's Island.	2	Sc. Leila B†	do	Bostwick ..	71
	Total					

DISTRICT No. 2.—EMBRACING

1881.						
July 13	Newburyport Bar	1	Sc. Can't-Come-It ‡..	Portsmouth, N. H.	Norton	10
Aug. 10	Shovelful Shoal, five miles south of station.	13	Sl. Hattie B.	Boston, Mass.	Seche	
Sept. 14	One and a half miles east of station.	6	Sc. City of Augusta.	Augusta, Me.	Johnson ..	581
Sept. 15	Wellfleet, near station	10	Fish boat	Wellfleet, Mass. ...	Dyer	
Sept. 19	East end of Peaked Hill Bar.	8	Bg. Clara J. Adams..	Lubec, Me.	Dow	407
Sept. 23	One mile north of North River, two and one-half miles south of station.	3	Sl. Petrel	Cambridge, Mass.	Perry	4
Oct. 4	Race Point	6	Str. A. H. Glover	Boston, Mass.	Brown	9
Oct. 5	Brown's Island Shoals	4	Sc. Winnie Lawry...	Waldoborough, Me	Spear	246
Oct. 8	Two miles south of station..	1	Sloop (no name)	Newburyport, Mass.	Rodegras	
Oct. 18	Brown's Island Shoals	4	Sc. Forest Queen	Boston, Mass.	Cadigan...	53
Oct. 23	Handkerchief Shoals, six miles southwest of station.	14	Sc. Williamine	do	Scott	414
Nov. 14	Brown's Island Shoals	4	Sc. Georgiana ‡	Bangor, Me.		
Nov. 26	One mile from station	5	Open boat			
Dec. 10	Fifteen miles southeast of Thacher's Island.	6	Sc. J. A. Hatfield	Parrsborough, N.S.	Hatfield...	132
1882.						
Jan. 3	Two and a half miles east southeast of station.	13	Sc. Dart	St. John, N. B.	Waters ...	98
Jan. 3	Northeast of Chatham, two and a half miles from station.	13	Sc. S. V. W. Simmons	Philadelphia, Pa. ..	Douglass ..	194
Jan. 10	Stone Horse Shoal, seven miles southwesterly of station.	14	Sc. Charles Noble Simmons.	Taunton, Mass. ...	Babbitt ...	710
Jan. 11	Race Point	6	Sc. A. F. Ames	Rockland, Me.	Achorn ...	281

* No one on board.

† No assistance by life-saving crew; crew landed without help.

MAINE AND NEW HAMPSHIRE—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
Cutler, Me.....	Grand Manan, N. B.	.....	200	.....	200	150	50	3	3	.....	3	3
New Haven, Conn.	St. John, N. B.	.....	\$2,500	.....	\$2,500	\$2,300	\$200	5	5	.....	.....	.....
Jonesport, Me	Portland, Me..	Clams	700	\$500	1,200	1,175	25 (*)	.....	.....	.....	.....	.....
Vinal Haven, Me.	Philadelphia, Pa.	Granite...	7,000	2,000	9,000	9,000	.....	5	5	.....	.....	.....
Saint George, Me.	Jacksonville, Fla.	Stone	12,000	800	12,800	12,800	.....	10	10	.....	.....	.....
Ellsworth, Me.	Boston, Mass..	General ..	1,200	1,500	2,700	2,650	50	3	3	.....	.....	.....
Portland, Me..	Blue Hill, Me..	Assorted	1,200	2,000	3,200	3,100	100	4	4	.....	.....	.....
Rockland, Me..	Eastport, Me..	.....	1,500	.....	1,500	1,450	50	3	3	.....	.....	.....
Boston, Mass..	Campo Bello, N. B.	Furniture.	5,000	7,000	12,000	500	11,500	5	5	.....	.....	.....
St. John, N. B..	Rockport, Me..	Wood.....	1,500	300	1,800	.....	1,800	4	4	.....	.....	.....
.....	.....	.....	161,450	30,000	197,450	169,150	28,300	206	206	.....	11	11

COAST OF MASSACHUSETTS.

Newburyport, Mass.	Isles of Shoals	Fish	500	150	650	.....	650	7	7	.....	.....	.....
Boston, Mass..	Edgartown, Mass.	.....	200	.....	200	125	75	5	5	.....	.....	.....
Gardiner, Me..	Philadelphia, Pa	Ice	22,000	3,600	25,600	25,600	.....	8	8	.....	.....	.....
Fishing Ground	Cahoon's Hollow, Mass.	.....	10	.....	10	10	.....	1	1	.....	.....	.....
Boothbay, Me..	Philadelphia, Pa	Ice	7,000	2,000	9,000	.....	9,000	8	8	.....	8	24
Cambridge, Mass.	Marshfield, Mass.	.....	150	.....	150	150	.....	2	2	.....	2	2
Nantucket, Mass.	Boston, Mass..	.....	2,700	.....	2,700	.....	2,700	3	3	.....	3	6
Poughkeepsie, N. Y.	.....do	Moulding sand.	10,000	1,500	11,500	11,300	200	7	7	.....	7	7
Newburyport, Mass.	Ipswich, Mass..	.....	150	.....	150	50	100	4	4	.....	.....	.....
Outside Beach	Plymouth, Mass	Gravel	1,000	100	1,100	1,100	.....	4	4	.....	.....	.....
Richmond, Me	Baltimore, Md.	Ice	20,000	1,500	21,500	21,200	300	8	8	.....	.....	.....
Plymouth, Mass	Sandwich, Mass	Hoops and staves.	3,000	800	3,800	3,800	.....	4	4	.....	.....	.....
On pleasure trip	.....	.....	20	.....	20	20	.....	1	1	.....	.....	.....
Cornwallis, N. S	New York	Potatoes ..	4,000	6,500	10,500	.....	10,500	6	6	.....	5	5
St. John, N. B..	.....do	Lumber...	5,000	1,500	6,500	6,000	500	4	4	.....	.....	.....
Philadelphia, Pa	Boston, Mass..	Coal	8,000	1,400	9,400	9,150	250	6	6	.....	.....	.....
Bath, Me	Baltimore, Md.	Ice	40,000	3,000	43,000	43,000	.....	9	9	.....	.....	.....
Perth Amboy, N. J.	Boston, Mass....	Iron	7,000	11,000	18,000	4,000	14,000	7	7	.....	7	14

* No assistance by life-saving crew; vessel's crew landed by fishermen on beach near by.

§ No assistance required of life-saving crew.

DISTRICT No. 2.—EMBRACING COAST

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1882.						
Jan. 17	One mile west northwest of station.	1	Sc. Jesse Y. Baker ..	Gloucester, Mass..	Poole	56
Jan. 31	One mile south of North River, Marshfield Beach.	3	Sc. Louise D. Rathbun.*	Perth Amboy, N. J.	Wood	302
Feb. 3	Doherty's Bar, two and one half miles north of station.	3	Sc. Water-Line.....	Boston, Mass	Kelley	276
Feb. 8	Two and a half miles east of station.	7	Sc. Lady Franklin...	Pictou, N. S.....	Weatherly	77
Feb. 14	One-half mile west of station.	7	Bkne. Japan	Papenburg, Germany.	Rottgers	286
Feb. 22	Three hundred yards south of pier on Plymouth Beach.	4	Sc. Robert Ripley ...	Camden, Me	Freethy	48
Apr. 8	Brown's Island Shoals	4	Sc. Lizzie Poor	Belfast, Me	Dickey	52
Apr. 9	Gurnet Head	4	Sc. Mary	Plymouth, Mass	Lovel	174
Apr. 10	South of Brown's Island Shoals.	4	Sc. Anna Shepard...	Fall River, Mass..	Curtis	174
Apr. 16	Chatham Bar	13	Sc. Cabot	Boston, Mass	Bunker	153
Apr. 25	Off Manomet Point, three-quarters of a mile east of station.	5	Open boat		Bradford	
June 2	Near Station.	15	Open boat †	Portland, Me	Morton	
June 24	Chatham Bar, three miles south-southwest of station.	13	Sc. S. D. Hart ‡	Belfast, Me	Grover	117
	Total					

DISTRICT No. 3.—EMBRACING COASTS

1881.						
July 11	Grace's Point, west side of Block Island.	5	Sc. Edward E. Webster. §	Gloucester, Mass..	Jacobs	99
July 26	Beach Cove, Block Island ...	5	Sc. Calvin F. Baker §	Dennis, Mass	Chase	567
Aug. 1	Southwest part of Block Island.	5	Sc. Etta M. Story § ...	Fairhaven, Mass..	Kelly	56
Aug. 5	Dicken's Point, Block Island	5	Sc. Anna Bell §	Boston, Mass	Conroy	181
Aug. 5	Rose Point, Block Island	5	Sc. Ann Louisa Lockwood. §	Norwalk, Conn	St. John	339
Aug. 5	.....do	5	Sc. Ada D. Shortland. §	New York	Herrick	227
Aug. 5	Black Rock, Block Island ...	5	Sc. John T. Manson §	New Haven, Conn.	Phinney ..	387
Aug. 5	Blue Rock, Block Island	5	Sc. Elizabeth Sinnamon. §	Philadelphia, Pa..	Outten	207
Aug. 6	One-half mile west of station.	2	Sc. Tillie E †	Provincetown, Mass.	Gross	93
Aug. 6	Rose Point, Block Island	5	Bk. Robert A. Chapman. §	Dorchester, N. B..	Rutherford ..	982
Aug. 6	Sandy Point, near lighthouse, northwest side of Block Island.	5	Sc. Roamer §	Boston, Mass	McFarland ..	124
Sept. 6	Black Rock, Block Island ...	5	Sc. Wave Crest	Sag Harbor, N. Y..	Morton	300
Sept. 25	Fire Island Bar	25	Sc. George F. Carman.	Patchogue, N. Y..	Ketcham ..	36
Oct. 7	One-half mile west of station	25	Sl. Vixen	Bay Shore, N. Y..	Jeffrey	2
Nov. 3	Four miles south of station ..	11	St. sp. Lancaster	Philadelphia, Pa ..	Mills	1,283
Nov. 6	One-half mile south of station	25	Sc. Hickman	Barnstable, Mass..	Adams	146
Nov. 10	Napatree Point	3	Sc. Mary H. Stockham.	Philadelphia, Pa..	Reed	257
Nov. 24	Two miles west southwest of station.	35	Sl. Gray Eagle || .....	New York	Bogart	6
1882.						
Jan. 2	South Bay, four miles south of Patchogue.	22	Open boat	Sayville, L. I	Darling	
Jan. 4	Watch Hill Reef	3	Sc. Monmouth ‡	New York	Anderson ..	114

* Crew taken off by boat of Massachusetts Humane Society.

† Boat belonged to bark Jacob S. Winslow, bound from Perth Amboy, N. J., to Portland, Me.

‡ Crew came ashore in their own boat.

● OF MASSACHUSETTS—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
Gloucester, Mass.	Boston, Mass.	Sand	\$1,200	\$100	\$1,300		\$1,800	4	4		4	16
South Amboy, N. J.	do	Coal	15,000	2,500	17,500		17,500	6	6			
Elizabethport	Lynn, Mass.	Coal	14,000	2,000	16,000	\$16,000		6	6			
Halifax, N. S.	Boston, Mass.	Potatoes ..	4,000	3,000	7,000	6,500	500	6	6			
Pernambuco, Brazil.	do	Sugar	8,000	33,000	41,000	41,000		10	10		10	10
Duxbury, Mass.	do		2,000		2,000	1,200	800	3	3			
Belfast, Me.	New York	Potatoes ..	3,500	2,000	5,500	5,500		4	4			
Hoboken, N. J.	Plymouth, Mass.	Coal	6,000	1,200	7,200	7,100	100	5	5			
Plymouth, Mass.	On pleasure trip		50		50	50		3	3			
Gardiner, Me.	New York	Lumber...	2,000	2,000	4,000	3,600	400	6	6			
Plymouth, Mass.	Gunning		20		20	20		1	1		1	1
			30		30	30		10	10			
Bangor, Me.	Providence, R. I.	Lumber...	2,500	1,500	4,000	1,200	2,800	4	4		4	4
			189,030	80,350	269,380	207,705	61,675	162	162		51	89

OF RHODE ISLAND AND LONG ISLAND.

Gloucester, Mass.	Block Island, R. I.		6,000		6,000	6,000		16	16			
Baltimore, Md.	Boston, Mass.	Coal	12,000	3,000	15,000	15,000		9	9			
Fairhaven, Mass.	Block Island, R. I.		2,500		2,500	2,200	300	12	12			
Gonaives, Hayti	Boston, Mass.	Logwood..	10,000	3,000	13,000	12,000	1,000	8	8			
Georgetown, D. C.	do	Coal	9,000	1,200	10,200	10,200		7	7			
Jacksonville, Fla.	Providence, R. I.	Wood	7,000	6,000	13,000	12,000	1,000	7	7			
Philadelph'ia, Pa.	Boston, Mass.	Coal	18,000	2,400	20,400		20,400	9	9			
Philadelph'ia, Pa.	Lynn, Mass.	do	15,000	1,200	16,200		16,200	7	7			
Weehawken, N. J.	Provincetown, Mass.	do	1,800	800	2,600	500	2,100	3	3		3	15
New York	Bordeaux, Fr.	Grain	20,000	28,000	48,000	47,500	500	17	17			
South Amboy, N. J.	Portsmouth, N. H.	Coal	8,000	1,000	9,000	400	8,600	5	5			
Georgetown, D. C.	Bristol R. I.	do	6,000	1,800	7,800	7,500	300	8	8			
Haverstraw, N. Y.	Patchogue, N. Y.	Brick	3,000	225	3,225	3,025	200	3	3		3	3
Bay Shore, N. Y.	Fishing		100		100	50	50	1	1			
Boston, Mass.	Philadelphia, Pa.		150,000		150,000	140,000	10,000	18	18			
Bangor, Me.	Islip, L. I.	Lumber...	2,500	3,400	5,900	5,850	50	5	5			
Elizabeth Port, N. J.	Gardiner, Me.	Coal	18,000	1,800	19,800	19,800		6	6			
Canarsie, L. I.	Fishing		300		300		300	5	5		1	1
Fire Island, N. Y.	Sayville, L. I.		200		200	200		1	1			
Newport, R. I.	New York		3,000		3,000		3,000	5	5		5	10

§ No assistance required of life-saving crew.

|| Crew landed without assistance.

DISTRICT No. 3.—EMBRACING COASTS OF ●

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1882.						
Jan. 11	East end of Jones' Beach..	28	Sc. J. H. M	Milford, England..	Roberts ...	194
Jan. 18	Outer part of Breakwater, Block Island.	4	Sl. Juliet	Noank, Conn	Fitch	25
Jan. 27	{ One and a quarter miles east of station No. 20.	{ 19 20 21 22	{ Sp. Margaretha	{ Bremerhaven, } Germany.	Frerichs ..	1,534
Feb. 16	One half mile west south- west of station.	17	Open boat	West Hampton, N. Y.	Raynor	
Mar. 11	Jamaica Bay, one mile north northwest of station.	36	Sl. Peerless	New York	Ramsom ..	6
Mar. 30	Eaton's Neck	38	Sc. Kate Cannon	do	West	41
Apr. 20	West end of Oak Island	27	Yawl	Amityville, N. Y..	White	
Apr. 21	South of South Pier, one- half mile south of station.	1	Sc. Janet S	St. John, N. B	Shaw	88
May 24	Two miles west of station...	2	Sail-boat Silver Slide	Providence, R. I...	Loyd	
May 29	One-half mile west of station.	11	Bg. Daylight	New Haven, Conn.	Gibson	238
	Total					

DISTRICT No. 4.—EMBRACING

1881.						
July 1	Man-Killer Island, three miles northwest of station.	27	Sl. Caroline*	New York	Lynn	7
July 13	One mile northwest of sta- tion.	40	Sc. Sunbeam	Tuckerton, N. J...	Parker	22
Aug. 15	South side of Absecom Inlet.	27	Sl. Julia A. Reid	Somer's Point, N. J.	Steelman..	11
Sept. 21	South bar of Hereford Inlet.	36	Sc. E. B. Fithian	Camden, N. J	Higbee	26
Sept. 22	Shrewsbury River, one mile south of Highlands.	3	Sail-boat Gipsev		Rutherford	3
Sept. 24	North side of Great Egg Harbor Inlet.	29	Sc. Hattie J	Somer's Point, N. J.	Campbell..	30
Sept. 24	do	29	Sc. J. and C. Merritt.	do	Buoy	34
Oct. 7	One hundred yards south of station.	1	Sc. Lucy	Greenpoint, Long Island.	Heron	
Oct. 11	Cape May Point, three- quarters of a mile south- west of station.	40	Sc. Wm. P. Hood ...	Somerset, Mass ...	Davis	666
Oct. 15	Entrance to Absecom Inlet.	27	Yacht R. M. Mc- Cristal.	Absecom, N. J....	Shaw	
Oct. 19	Two miles northeast of sta- tion.	10	Fishing boat	Point Pleasant, N. J.	Chadwick	
Oct. 19	Cape May Point	40	Sc. Crissie Wright ..	Philadelphia, Pa..	Clark	386
Oct. 19	do	40	Sc. Hattie Perry	New Bedford, Mass.	Chase	174
Oct. 22	Outside of North Channel, Great Egg Harbor Inlet.	29	Sc. George Anderson	Somer's Point, N. J.	Somers	8
Oct. 22	Bar at North Channel, Great Egg Harbor Inlet.	29	Yacht Amelia	do	Townsend	
Nov. 2	Two miles southwest of sta- tion.	30	Bg. Zetland	Nova Scotia	Keating ...	288
Nov. 14	Two and a half miles north- east of station.	11	Yacht Bunnle	Tom's River, N. J.	Gardner	
Nov. 23	Squan Beach	11	Bg. Arctic	Annapolis, Nova Scotia.	Oxelgren ..	274
Dec. 14	Point Creek, one and one- half mile west of station.	23	Sc. Sunbeam	Tuckerton, N. J ..	Parker	22
Dec. 21	Cape May Point	40	Sc. Carrie S. Hart ...	Providence, R. I..	Davis	529

* No assistance rendered by life-saving crew.

RHODE ISLAND AND LONG ISLAND—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
New York	Vianna, Portug'l	Petroleum	\$10,000	\$9,000	\$19,000	\$2,150	\$16,850	7	7	..	7	14
Block Island, R. I.	Fishing ..		2,000		2,000	2,000		5	5	..		
Bremerhaven, Germany.	New York	Merchandise.	30,000	20,000	50,000	3,000	47,000	22	22	..	22	109
West Hampton, N. Y.	Fishing		100		100	100		3	3	..		
Barren Island, N. Y.	Canarsie, N. Y.		600		600	600		1	1	..	1	1
New York	Eaton's Neck ..		2,500		2,500	2,000	500	4	4	..	2	4
Amityville, N. Y.	Cruising		50		50	50		1	1	..	1	2
Narragansett Pier, R. I.	St. John, N. B.		1,800		1,800	1,000	800	5	5	..	2	2
Providence, R. I.	Bridgeport, Conn.	Furniture, &c.	60	130	190	180	10	2	2	..	2	2
Martinique, W. I.	New Haven, Conn.	Sugar	15,000	15,000	30,000	27,000	3,000	10	10	..		
.....	.....	.....	354,510	97,955	452,465	320,305	132,160	212	212	..	49	163

COAST OF NEW JERSEY. ,

New York	Atlantic City, N. J.		300		300	100	200	2	2	..		
Frederick, Del.	Tuckerton, N. J.	Grain	2,700	625	3,325	3,325		3	3	..		
Absecom, N. J.	On pleasure trip		1,000		1,000	1,000		12	12	..		
Hog Island, Va.	New York	Potatoes ..	1,000	800	1,800	1,725	75	3	3	..		
Red Bank, N. J.	Sea Bright, N. J.		300		300	300		2	2	..		
Somer's Point, N. J.	New York	Wood	800	100	900	400	500	3	3	..	3	6
.....do .....	.....do	Menhaden oil.	2,000	3,000	5,000	4,950	50	3	3	..		
Greenpoint, Long Island.	Fishing	Fish	1,000	200	1,200	1,200		2	2	..		
Boston, Mass.	Philadelphia, Pa.		35,000		35,000	35,000		9	9	..		
Absecom, N. J.	Fishing	Fish	400	20	420	370	50	3	3	..		
Squan Inlet, N. J.	Fishing Ground		25		25	25		2	2	..	2	2
Providence, R. I.	Philadelphia, Pa.		25,000		25,000	25,000		7	7	..		
New Bedford, Mass.	.....do	Lumber & sperm oil.	8,000	2,400	10,400	10,400		5	5	..		
Somer's Point, N. J.	Fishing		300		300	300		3	3	..	2	6
.....do .....	.....do		400		400	300	100	2	2	..		
Turk's Island, West Indies.	Philadelphia, Pa.	Salt	10,000	5,000	15,000		15,000	9	9	..		
Squan, N. J.	Barnegat, N. J.		120		120	120		1	1	..	1	2
Trieste, Austria.	New York	General ..	8,000	40,000	48,000		48,000	9	9	..	9	18
Tuckerton, N. J.	.....do	Oysters ...	3,700	237	3,937	3,937		3	3	..		
Boston, Mass.	Philadelphia, Pa.		25,000		25,000	25,000		8	8	..		

OF NEW JERSEY—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
Baltimore, Md.	Boston, Mass.	Coal	\$25,000	\$2,500	\$27,500	\$27,300	\$200	8	8			
do	New York	do	6,500	1,400	7,900	5,100	2,800	6	6		6	26
New York	Baltimore, Md.		25,000		25,000	24,850	150	8	8			
Philadelphia, Pa.	New York	Merchandise.	12,000	10,000	22,000	21,500	500	9	9			
New York	Richmond, Va.	{ Railroad iron.	20,000	30,000	50,000	50,000		7	7			
Chincoteague, Va.	New York	Wood	3,000	250	3,250	3,250		4	4			
New York	Atlantic City, N. J.	Laths	800	125	925	900	25	2	2		2	2
Montevideo, S. America.	New York	Hides	7,000	90,000	97,000	72,000	25,000	9	9		9	207
Hog Island, Va.	Townsend's Inlet, N. J.	Oysters	1,500	150	1,650	1,550	100	3	3		1	1
Liverpool, England.	New York	Salt	30,000	7,000	37,000		37,000	14	13	1	13	16
Norfolk, Va.	Elizabethport, N. J.	Lumber	7,000	3,500	10,500	9,000	1,500	6	6			
Baracoa, Cuba.	New York	Fruit	7,000	900	7,900	7,900		6	6			
Bon-Air, West Indies.	do	Salt and dye wood.	12,000	15,000	27,000		27,000	14	14		14	14
Port Republic, N. J.	do	Wood	2,000	60	2,060	2,050	10	3	3			
Manzanillo, Cuba.	do	Sugar, molasses, &c.	6,000	18,000	24,000	23,000	1,000	7	7		7	14
Virginia	do	Wood	16,000	2,000	18,000	17,800	200	6	6			
Williamsburgh, Long Island.	On pleasure trip		250		250		250	4	4		4	4
Kennebec Riv'r, Me.	Atlantic City, N. J.	Ice	8,000	1,800	9,800	9,800		6	6			
{ Liverpool, England. }	New York	{ Coffee, hides, &c. }	200,000	250,000	450,000	7,000	443,000	61	61		26	98
			514,095	485,067	999,162	396,452	602,710	274	273	1	99	416

CAPE HENLOPEN AND CAPE CHARLES.

Jamaica, W. I.	Philadelphia, Pa.	Fruit	12,000	6,000	18,000	17,500	500	9	9		1	1
Philadelphia, Pa.	Indian River, Del.	Hardware, brick, and lime.	500	400	900	300	600	3	3			
do	Alexandria, Va.	Coal	3,000	1,500	4,500		4,500	9	9			
Halifax, N. S.	Norfolk, Va.		95,000		95,000	94,200	800	33	33			
Lisbon, S. A.	Delaware Breakwater.	Iron ore	15,000	4,000	19,000	13,000	6,000	13	13			
Philadelphia, Pa.	Richmond, Va.	Coal	4,000	1,300	5,300	5,150	150	5	5		5	5
Cobb's Island, Va.	Seaside, Va.		200		200	200		2	2			
Atlantic City, N. J.	Yorktown, Va.		300		300	250	50	6	6			
Locustville, Va.	Fishing	Fish	40	5	45	30	15	3	3			
Jacksonville, Fla.	Perth Amboy, N. J.	Lumber	15,000	8,940	23,940	15,440	8,500	8	8			

‡ Vessel sprung a leak, and was run ashore to save those on board, all of whom landed without assistance.

DISTRICT No. 5.—EMBRACING COAST BETWEEN

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1881.						
Nov. 4	Carter's Bar	10 } 11 }	Sc. John McDonnell	Philadelphia	Coulborn..	186
Nov. 16	Middle ground between Cobb's and Bone Islands.	10	Sc. Dauntless	Cherrystone, Va ..	Travers...	14
Dec. 9	Four and a quarter miles north of station.	9	Sl. J. H. Chapman* ..	Keyport, N. J.	Leamon...	17
Dec. 12	Point of Cape Henlopen	1	Sc. Spring Bird	Provincetown, Mass.	Newcomb..	81
Dec. 12	do	1	Sc. Kate M. Hilton ..	Boston, Mass.	Johnson ..	538
Dec. 14	Smith's Island Beach	11	Bg. Agostino C.	Castel-a-Mare, Italy.	Langobarde.	318
Dec. 15	Cobb's Island	10	Sl. Ocean Star	Somer's Point, N. J.	Rider	13
Dec. 22	One and a half miles south of station.	8	Sc. Carrie Hall Lister	Seaford, Del	Pierce	142
1882.						
Jan. 2	Two miles south-southeast of station.	8	Sc. J. Ricardo Jova..	Philadelphia, Pa ..	Dale	332
Jan. 9	Cobb's Island Inlet	10	Bark Sagitta*	Windsor, N. S.	Taylor	578
Jan. 24	One and a half miles north of station.	5	Sc. Chancellor	New Haven, Conn.	Manken...	93
Jan. 24	Two and a half miles north of station.	5	Sc. Abbie and Eva Hooper.	Camden, N. J.	Hooper ...	322
Jan. 29	Carter's Bar	10	Sc. Elizabeth A. Baizley.	do	Townsend.	373
Jan. 31	Sheep Pen Hills, three and one-half miles east-northeast of station.	7	Sc. Dolly Varden ...	Somer's Point, N. J.	Hackney..	11
Feb. 21	Fox Shoal, three and a half miles southwest of station.	7	Sl. Dauntless	Chincoteague Isl. and, Va.	Collins....	13
Mar. 1	One mile east-northeast of station.	6	Sc. Hannah M. Lollis	Wilmington, Del..	Camp	299
Mar. 1	Hog Island, outer bar	9	Sl. Memento	Onancock, Va	Means	17
Mar. 11	Hammock Beach	7	Sc. Alvira	Millville, N. J.	Saunders..	82
Mar. 23	Three and a half miles north-northeast of Ocean City.	4	Sc. Martha Collins ..	Baltimore, Md	Morgan ...	115
Apr. 23	Abreast of station	4	Sl. John F. Armstrong.	Great Egg Harbor, N. J.	Townsend.	9
Apr. 27	Hog Island, Va	9	Sc. Mary C	New Castle, Del ..	Williams..	61
May 5	Wallop's Beach	7	Sl. Maggie Bell	Chincoteague, Va	Lynch	5
June 4	Point of Cape Henlopen	1	Bark Jessie Goodman	Ardrossan, Scotland,	Gibson....	338
	Total					

DISTRICT No. 6.—EMBRACING COAST

1881.						
Oct. 5	Three and a half miles north of station.	18	Sc. Thomas J. Lancaster.	Philadelphia, Pa ..	Hunter ...	653
Oct. 5	One mile south of station...	20	Sc. Charles	Beaufort, N. C.	Ireland ...	33
Oct. 5	Four hundred yards south of station.	20	Sc. H. W. McColly ..	New York	Doughty..	111
Nov. 23	Mouth of Lynn Haven Inlet, seven miles from station.	1	Sc. James W. Brown.	Belfast, Me	Elwell	161
1882.						
Jan. 17	Two hundred yards north of station.	1	Stm. sp. Nederland* ..	Rotterdam, South Holland.	Sluenedrecht.	1,738
Feb. 5	One half mile north of station.	18	Sc. Mary L. Vankirk.	Philadelphia, Pa ..	Ballance ..	127
Feb. 24	Opposite station	5	Sc. Pearl Nelson	Provincetown, Mass.	Kemp	123

*No assistance required of life-saving crew.

CAPE HENLOPEN AND CAPE CHARLES—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
{ Nansemond River, Va.	Philadelphia, Pa.	Railroad ties.	\$8,000	\$2,250	\$10,250	.....	\$10,250	6	6	..	6	18
, Cobb's Island, Va.	Cherrystone, Va.	Oysters ...	1,000	65	1,065	\$1,065	.....	3	3	..	..	..
Norfolk, Va....	Rappahannock, Va.	.....	600	.....	600	.....	600	3	3	..	3	6
Tangler Sound.	Boston, Mass..	Oysters ...	5,000	700	5,700	5,700	.....	5	5	..	..	..
Boston, Mass..	Delaware Break-water.	.....	16,000	.....	16,000	16,000	.....	8	8	..	..	..
Sicily	Baltimore, Md.	Sulphur...	19,000	12,800	31,800	.....	31,800	10	10	..	10	50
New York	Ship Shoal, Va.	.....	1,500	.....	1,500	1,500	.....	3	3	..	..	..
Rappahannock, Va.	New York	Wood	6,000	800	6,800	6,800	.....	7	7	..	..	..
New York	Richmond, Va.	Railroad iron.	7,000	12,750	19,750	.....	19,750	7	7	..	7	28
Cartagena, Spain.	Baltimore, Md.	Iron ore...	12,000	8,000	20,000	20,000	.....	12	12	..	..	..
Virginia	Fair Haven, Conn.	Oysters ...	3,000	1,500	4,500	.....	4,500	6	6	..	6	18
Philadelphia, Pa.	Wilmington, N. C.	Steel rails.	10,000	27,000	37,000	30,000	7,000	8	8	..	8	8
Baltimore, Md.	Providence, R. I.	Coal	15,600	3,600	18,600	17,300	1,300	7	7	..	7	14
New Inlet, Va.	Great Egg Harbor, N. J.	Oysters ...	1,000	250	1,250	.....	1,250	3	3	..	3	9
Hog Island, Va.	Chincoteague Island, Va.	....do	400	50	450	.....	450	3	1	2	.....	..
Savannah, Ga..	New York	Lumber...	16,000	6,000	22,000	900	21,100	8	8	..	8	48
Round Rock, Va.	Norfolk, Va....	Corn and potatoes.	700	600	1,300	700	600	2	2	..	..	..
Pocomoke City, Md.	Millville, N. J..	Lumber...	2,500	3,000	5,500	5,500	.....	5	5	..	..	..
York River, Va.	New York	Wood	5,000	1,000	6,000	.....	6,000	5	5	..	5	18
Great Egg Harbor, N. J.	Chincoteague, Va.	.....	1,800	.....	1,800	1,750	50	2	2	..	2	4
James River...	Sinepuxent Bay, Del.	Oysters ...	2,500	300	2,800	2,800	.....	5	5	..	..	..
Hog Island, Va.	Chincoteague, Va.	....do	200	50	250	.....	250	2	2	..	..	..
Cardenas, Cuba	Delaware Break-water.	Sugar	20,000	55,000	75,000	75,000	.....	11	11	..	..	..
.....	.....	.....	299,240	157,860	457,100	331,085	126,015	222	220	2	71	227

BETWEEN CAPE HENRY AND CAPE FEAR.

Boston, Mass..	Savannah, Ga..	Ice	15,000	5,000	20,000	.....	20,000	13	6	7	5	71
Broad Creek, N. C.	Baltimore, Md.	Lumber...	2,000	125	2,125	1,550	575	3	3	..	3	18
....do	Philadelphia, Pa.	... do	5,000	1,500	6,500	100	6,400	5	5	..	5	15
Baltimore, Md.	Jacksonville, Fla.	General...	10,000	10,000	20,000	5,000	15,000	7	7	..	..	..
Rotterdam, South Holland.	Baltimore, Md..	....do	75,000	55,950	130,950	130,950	.....	34	34	..	..	..
South Creek, N. C.	Philadelphia, Pa.	Lumber...	3,500	2,000	5,500	500	5,000	5	5	..	5	13
Wilmington, N. C.	Plymouth, Mass	Tar	9,000	2,500	11,500	10,600	900	6	6	..	6	6

DISTRICT No. 6.—EMBRACING COAST BETWEEN

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1882. Apr. 12	Frying Pan Shoals, five miles south of station.	25	Sc. Minnie	New York	Wicks	299
Apr. 14	Middle Ground, Hatteras Inlet, five miles from station.	23	Sc. O. P. Binns .....	....do	Crapper ..	114
Apr. 24	Frying Pan Shoals, nine miles south-southeast of station.	25	Sc. Mercy T. Trundy.	Calais, Me.....	Crowly....	190
Total .....			.....	.....	.....	.....

DISTRICT No. 8.—EMBRACING

1881. Oct. 8	North end of Mustang Island.	5	Brig Ramirey.....	New York	Rogers	283
Oct. 12	Matagorda Island.....	4	Sc. J. M. McInnis ...	Corpus Christi, Tex.	Mack	48
Nov. 21	Matagorda Island, one-half mile northeast of station.	4	Sc. Josephine	Indianola, Tex	Farwell ...	14
Nov. 28	St. Joseph's Island.....	5	Sl. Gertrude.....	Galveston, Tex ...	Pierce	27
Dec. 9	Aransas Bar	5	Str. James A. Gary..	New York	Peterson ..	201
Dec. 22	One and a quarter miles east-southeast of station.	1	Sc. Polaris	Galveston, Tex....	Deventer..	15
1882. Feb. 9	Aransas Bar	5	Sc. Stella.....	....do	Silver	38
Feb. 26	Aransas Bar	5	Sc. Susanna	Calcasieu, La.....	Mahoney..	43
Mar. 21	Sabine Pass, half mile northwest of station.	1	Sc. C. H. Moore.....	Galveston, Tex.,...	McClanahan.	49
Mar. 21	Brazos Island, one half mile northwest of station.	6	Str. Ethel	Brownsville, Tex..	.....	35
Mar. 28	East end of Brazos Island ..	6	Sc. W. W. Hungerford.	Mobile, Ala	Plummer..	.....
Apr. 12	Sabine Pass, one-half mile northwest of station.	1	Sc. Marietta.....	Sabine Pass, Tex..	Arledge...	10
Apr. 19	Matagorda Island, one mile northeast of station.	4	Sc. Josephine	Indianola, Tex	Farwell ...	14
Total .....			.....	.....	.....	.....

DISTRICT No. 9.—EMBRACING

1881. July 5	Six hundred yards north-east of station.	7	Sc. J. H. Rutter.....	Detroit, Mich .....	.....	1,224
July 10	Two miles east of station...	4	Str. Y. John Bueg...	Rochester, N. Y...	Bueg.....	.....
July 11	One mile north of station...	6	Sc. Sunrise	Chicago, Ill	Pendeville	439
July 17	Three-quarters of a mile northeast of station.	4	Slp. Laura May.....	Charlotte, N. Y ...	.....	.....
July 21	Abreast of station.....	8	Canoe	Cleveland, Ohio ...	Robinson ..	.....
Aug. 18	One-quarter mile southwest of station.	1	Sc. Fiat	Big Sandy Creek, N. Y.	Jenkins ...	38
Sept. 11	Three hundred yards northwest of station.	8	Sc. John Walters....	Picton, Canada ...	Sidley.....	162
Sept. 14	Two hundred yards north-east of station.	4	Open boat.....	.....	.....	.....
Sept. 20	Three-quarters mile west of station.	1	Sc. William Gilbert.	Sandy Creek, N. Y.	Gilbert....	49
Sept. 21	One-half mile northwest of station.	3	Sc. Aurora	Port Hope, Canada	Stickland .	233

CAPE HENRY AND CAPE FEAR—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons encouraged at station.	No. of days' succor afforded.
New York	Charleston, S. C.	Guanos and barrels.	\$10,000	\$5,200	\$15,200	.....	\$15,200	8	8	.....	8	8
Georgetown, S. C.	Philadelphia, Pa.	Shingles ..	2,000	3,000	5,000	\$2,000	3,000	6	6	.....	5	16
Philadelphia, Pa.	Wilmington, N. C.	Shingles ..	8,000	14,800	22,800	.....	20,800	6	6	.....	6	12
.....	.....	.....	137,500	100,075	237,575	159,700	88,875	93	86	7	48	153

COAST OF TEXAS.

Apalachicola, Fla.	Aransas Pass, Tex.	Railroad ties.	10,000	800	10,800	800	10,000	8	8	.....	.....	.....
Calcasieu, La.	Corpus Christi, Tex.	Lumber...	2,500	800	3,300	700	2,600	4	4	.....	.....	.....
Saluria, Tex.	.....	.....	1,000	.....	1,000	900	100	1	1	.....	1	10
Aransas Bar, Tex.	Corpus Christi, Tex.	Lumber...	2,000	600	2,600	2,600	.....	4	4	.....	.....	.....
Mobile, Ala.	do	do	15,000	1,500	16,500	16,500	.....	12	12	.....	.....	.....
Galveston, Tex.	Sabine Pass, Tex.	.....	900	.....	900	900	.....	9	3	.....	.....	.....
Pascagoula, Miss.	Corpus Christi, Tex.	Lumber...	2,000	700	2,700	3,550	150	4	4	.....	.....	.....
Corpus Christi, Tex.	Galveston, Tex.	.....	800	.....	800	.....	800	8	8	.....	.....	.....
Orange, Tex.	Corpus Christi, Tex.	Shingles ..	4,000	1,600	5,600	5,450	150	4	4	.....	.....	.....
Lying at Brazos Island, Tex.	.....	.....	4,000	.....	4,000	4,000	.....	4	4	.....	.....	.....
Mobile, Ala.	Point Isabel, Tex.	Lumber...	8,000	2,300	10,300	10,300	.....	6	6	.....	.....	.....
Sabine Pass, Tex.	.....	.....	2,500	.....	2,500	2,500	.....	2	2	.....	.....	.....
Pase Cavallo, Tex.	.....	.....	1,000	.....	1,000	1,000	.....	1	1	.....	.....	.....
.....	.....	.....	64,700	8,300	73,000	42,200	13,800	50	56	.....	1	10

LAKES ONTARIO AND ERIE.

Escanaba, Mich.	Fairport, Ohio.	Iron ore...	60,000	13,000	63,000	63,000	.....	6	.....	.....	.....	.....
Rochester, N. Y.	Sea Breeze, N. Y.	.....	400	.....	400	400	.....	12	.....	.....	.....	.....
Buffalo, N. Y.	Erie, Pa.	.....	15,000	.....	15,000	15,000	.....	9	.....	.....	.....	.....
Charlotte, N. Y.	Sea Breeze, N. Y.	.....	100	.....	100	100	.....	2	.....	.....	.....	.....
Cleveland, Ohio	On pleasure trip	.....	200	.....	200	200	.....	1	.....	.....	.....	.....
Oswego, N. Y.	Big Sandy Creek, N. Y.	Coal and flour	3,000	350	3,350	3,350	.....	5	.....	.....	.....	.....
Providence Bay, Canada.	Cleveland, Ohio	Railroad ties.	6,000	800	6,800	6,600	200	7	.....	.....	.....	.....
Charlotte, N. Y.	.....	.....	30	.....	30	30	.....	1	.....	.....	.....	.....
Trenton, Canada.	Woodville, N. Y.	Lumber...	3,000	500	3,500	3,500	.....	4	.....	.....	.....	.....
Port Hope, Canada.	Oswego, N. Y.	do	5,000	2,585	7,585	6,005	500	7	.....	.....	.....	.....

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1881.						
Sept. 26	Two miles east northeast of station.	9	Sc. R. B. Hayes	Kelly's Island, Ohio.	Beatty .....	.....
Sept. 30	Five miles north of station..	1	Str. Y. E. A. Van Horn.	Oswego, N. Y.	Bess	19
Oct. 2	Entrance to Big Sandy Creek Channel.	1	Sc. Flat	Big Sandy Creek, N. Y.	Jenkins...	38
Oct. 4	Two hundred yards north of station.	8	Sc. Moonlight	Milwaukee, Wis..	Sullivan...	777
Oct. 5	One-half mile west of station.	3	Sc. Richardson *	Kingston, Canada	McKee....	163
Oct. 12	Horseshoe Reef, head of Niagara River.	5	Sc. A. Boody	Detroit, Mich.	Hawkins..	287
Oct. 18	Big Sandy Creek, N. Y.	1	Sc. Flat	Big Sandy Creek, N. Y.	Jenkins...	38
Nov. 2	Lime Kiln Shoals, head of Niagara River.	5	Sc. Chas. N. Ryan† ..	Sandusky, Ohio ...	Mackis....	613
Nov. 2	Lime Kiln Shoals, head of Niagara River.	5	Str. Empire†	Detroit, Mich.	Toole	480
Nov. 2	Lime Kiln Shoals, head of Niagara River.	5	Sc. James F. Joy	Erie, Pa.	Christie...	583
Nov. 6	Three miles northeast of station.	6	Bge. Jupiter	Port Huron, Mich.	Neal	265
Nov. 7	Falls of the Ohio	10	Str. City of Baton Rouge.	Saint Louis, Mo...	O'Neil	1,603
Nov. 8	Falls of the Ohio	10	Row-boat	Louisville, Ky. ....	.....	.....
Nov. 12	Two hundred rods east of station.	7	Sc. H. A. Lamars	Cleveland, Ohio ...	Persons ...	88
Nov. 15	Twenty-two miles west of station.	4	Sc. Marquis	Toronto, Canada ..	Wilson....	424
Nov. 16	Presque Isle, one and a half miles north of station.	6	Sc. Nevada	Oswego, N. Y.	Pitcher ...	318
Nov. 18	Presque Isle Pier	6	Sc. Russia	Toronto, Canada ..	Berry	133
Nov. 20	Falls of the Ohio	10	Row-boat	Louisville, Ky. ....	.....	.....
Nov. 23	One-quarter mile east of station.	9	Sc. F. X	Port Huron, Mich.	Bortz	97
Dec. 7	One mile east of piers, Cleveland, Ohio.	8	Sc. H. P. Baldwin....	Cleveland, Ohio ...	Cassidy ...	495
Dec. 7	Three-quarters of a mile east of station.	8	Sc. Cossack	Detroit, Mich.	Bell	318
Dec. 12	Falls of the Ohio	10	Str. Golden Crown ..	Covington, Ky.	Shinkle ...	881
Dec. 21	.....do	10	Coal-flat	Louisville, Ky. ....	.....	.....
Dec. 25	.....do	10	Skiff .....	.....do .....	.....	.....
1882.						
Mar. 5	.....do	10	Str. James D Parker	Cincinnati, Ohio...	Tichenor..	505
Mar. 8	.....do	10	Skiff	Louisville, Ky. ....	.....	.....
Mar. 12	.....do	10	Skiff D. P. B	Jeffersonville, Ind.	.....	.....
Mar. 18	.....do	10	Str. Montana	Pittsburgh, Pa.	Bensen ...	959
Apr. 12	Five miles north of station..	1	Sc. Nellie Theresa...	Napanee, Canada ..	O'Hagan ..	98
Apr. 20	One mile north of station....	8	Crib for breakwater at Cleveland, Ohio.	.....	.....	.....
Apr. 20	Entrance to harbor, Cleveland, Ohio.	8	Row-boat	Cleveland, Ohio ...	Law .....	.....
Apr. 26	Five miles north of station..	1	Str. McArthur	Kingston, Canada ..	McDonald.	168
Apr. 30	Falls of the Ohio	10	Skiff Ruby	Louisville, Ky. ....	.....	.....
May 1	Abreast of station	8	Sc. Maggie	Erie, Pa.	Prior .....	.....
May 1	Falls of the Ohio	10	Str. T. Shiver	Evansville, Ind ...	Shiver	127
May 8	.....do	10	Skiff	Louisville, Ky. ....	.....	.....
May 10	.....do	10	Skiff .....	.....do .....	.....	.....

* Crew taken off by tug Wheeler.

† No assistance required of life-saving crew.

LAKES ONTARIO AND ERIE—Continued.

			Estimated value of vessel.		Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons succored at station.	No. of days' succor afforded.
Sandusky City, Ohio.	Kelly's Island, Ohio.		\$100		\$100	\$100		1	1		
Saint Lawrence River, Trent, Canada.	Oswego, N. Y.	General	3,000	41,000	4,000	3,400	\$000	2	2		
Escahabe, Mich.	Woodville, N. Y.	Lumber	3,000	500	3,500	3,500		5	5		
Kingston, Canada.	Cleveland, Ohio	Iron ore	40,000	10,000	50,000	45,500	4,500	11	11		
Black Rock ..	Oswego, N. Y.	Barley	4,000	10,000	14,000		14,000	6	6		
Oswego, N. Y.	Buffalo, N. Y.		13,000		13,000	12,500	500		3		
Bay City, Mich.	Woodville, N. Y.	General	3,000	500	3,500	3,500			4		
.....do	Tonawanda, N. Y.	Lumber	20,000	20,000	40,000	40,000			7		
.....do	do	do	15,000	5,000	20,000	19,500	500		13		
.....do	do	do	35,000	10,000	45,000	44,000	1,000		7		
.....do	do	do	5,000	4,000	9,000	8,300	700		6		
Jeffersonville, Ind.	Saint Louis, Mo		125,000		125,000	121,000	4,000		26		
.....do	On pleasure trip.		10		10	10			3		
Port Stanley, Canada.	Cleveland, Ohio	Wood	2,000	300	2,300		2,300		5	5	
Fair Haven, N. Y.	Toronto, Canada.	Coal	15,000	3,150	18,150	17,150	1,000		8		
Cape Vincent, N. Y.	Erie, Pa.	Iron ore	14,000	3,000	17,000	14,000	100		8		
Port Matland, Canada.	do	Barley	4,000	9,000	13,000	1,500	11,500		6	6	30
Louisville, Ky.	On pleasure trip.		10		10	10			2		
Sandusky, Ohio.	Port Huron, Mich.		2,100		2,100	1,400	500		5	5	15
Escahabe, Mich.	Cleveland, Ohio.	Iron ore	18,000	10,000	28,000		28,000		9		
.....do	do	do	18,000	3,000	21,000		21,000		7		
New Orleans, La.	Cincinnati, Ohio	Miscellaneous.	50,000	125,000	175,000	175,000			78		
Louisville, Ky.	Laying a hawser on falls.		100		100		100		3		
Jeffersonville, Ind.	Louisville, Ky.		5		5	5			1		
Cincinnati, Ohio.	Memphis, Tenn	Miscellaneous.	15,000	30,000	45,000	5,000	40,000	105	105		
Louisville, Ky.	do		15		15	15			2		
Jeffersonville, Ind.	Adrift		100		100	100					
Pittsburgh, Pa.	Saint Louis, Mo	Miscellaneous.	30,000	45,000	75,000	74,950	50	60	60		
Oswego, N. Y.	Pictou, Canada		4,500		4,500	4,350	150	6	6		
.....do	do		2,000		2,000	1,500	500				
.....do	do		40		40	40			1	1	
Kingston, Canada.	Woodville, N. Y.		15,000		15,000	15,000			9	9	
Louisville, Ky.	On pleasure trip.		25		25	25			2	2	
Erie, Pa.	Cleveland, Ohio	Fish	300	120	420	300	120		3	3	
Green River	Louisville, Ky.		15,000	7,000	22,000	22,000		12	12		
Louisville, Ky.	On pleasure trip.		5		5	5			2	2	
.....do	Fishing		5		5	5			1	1	

; \$1,000 of this amount value of barges in tow.

DISTRICT No. 9.—EMBRACING

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1882.						
May 18	Eight-Mile Point, eight miles east of Oswego, N. Y.	3	Sl. Santa Yuba *	Little Sandy Creek, N. Y.	Weaver...	4
May 20	Falls of the Ohio.....	10	Skiff H. Hawkins....	Madison, Ind.....	.....	.....
May 22	.....do.....	10	Fiat-boat.....	Parkersburg, W. Va.	.....	.....
May 27	One-half mile northwest of station.	8	Fish-boat.....	Cleveland, Ohio...	Parker.....	.....
May 27	Falls of the Ohio.....	10	Str. Little Andy Fulton.	Louisville, Ky.....	McIntyre..	108
May 27	.....do.....	10	Str. W. W. O'Neil...	Pittsburgh, Pa....	Bickerstaff	779
May 30	One-half mile east of station.	6	Fish-boat.....	Erie, Pa.....	Paach.....	.....
May 31	Five miles northeast of station.	3	Open boat.....	Oswego, N. Y.....	.....	.....
June 8	One mile northwest of station.	8	Yacht Circe.....	Cleveland, Ohio...	Richter...	6
June 11	Falls of the Ohio.....	10	Str. New Mary Houston.	Louisville, Ky.....	Miller.....	1,164
June 18	Buffalo River, thirty feet northwest of station.	5	Open boat.....	Buffalo, N. Y.....	.....	.....
June 19	Two miles east of station....	7	Fish-boat.....	Fairport, Ohio....	Lamars.....	.....
June 19	Falls of the Ohio.....	10	Skiff.....	Parkersburg, W. Va.	.....	.....
June 26	Three-quarters mile north of station.	2	Sl. Ella.....	Oswego, N. Y.....	Cummings	7
June 30	Falls of the Ohio.....	10	Skiff.....	Louisville, Ky.....	.....	.....
	Total.....					

DISTRICT No. 10.—EMBRACING

1881.						
July 11	North end of Thunder Bay Island.	6	Str. Lizzie.....	St. Catharine's, Canada.	Murry....	24
July 11	.....do.....	6	Dredge Canada No. 4	.....do.....	.....	.....
July 17	Twelve miles west of station	6	Skiff (no name).....	Ossineke, Mich....	.....	.....
Sept. 7	Whiskey Harbor Reef, three and a half miles southeast of station.	2	Sc. C. Amsden.....	Vermilion, Ohio...	Manning..	184
Sept. 16	South Harrisville, six and a half miles south of station.	5	Sc. Garibaldi.....	Detroit, Mich.....	Rivard....	53
Nov. 4	One and a half miles southeast of station.	1	Sc. West Side.....	Oswego, N. Y.....	Quigley...	324
Nov. 9	One and a half miles east northeast of station.	1	Sc. Otsego.....	An Sable, Mich....	Holder.....	.....
Nov. 11	Harrisville, four miles south of station.	5	Bge. Bay City †.....	Port Huron, Mich.	Gonda....	306
Nov. 11	Four and a half miles north of station.	5	Stm. Bge. H. C. Schnoor.	Cleveland, Ohio...	Burrows..	414
Nov. 12	Twenty-four miles southeast of station.	1	Sc. Homer H. Hine ‡	Vermilion, Ohio...	Wix.....	150
Nov. 25	Horseshoe Harbor, ten miles northwest of station.	8	Str. H. B. Tuttle.....	Cleveland, Ohio...	Smith.....	845
Nov. 25	.....do.....	8	Sc. George H. Ely...	.....do.....	Sweeney..	649
1882.						
Apr. 4	North end of Thunder Bay Island.	6	Fish-boat Lucy.....	Alpena, Mich.....	Mastow...	3
Apr. 9	Seven miles south of station	1	.....do||.....	Bayfield, Canada..	Drealy....	5
Apr. 13	Ottawa Point, one and three quarter miles southwest of station.	4	Sc. Joseph M. Enright.	Port Huron, Mich.	.....	64
Apr. 19	Eight and a half miles northwest of station.	8	Str. Alanson Sumner	Oswego, N. Y.....	Daggett...	207
Apr. 22	Mouth of Oqueoc River, two and a half miles southwest of station.	8	Sc. Robert Emmet..	Sheboygan, Wis...	Proctor...	49

* Crew landed by tug Wheeler. † Value of barges in tow. ‡ No assistance by life-saving crew.

LAKES ONTARIO AND ERIE—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
Oswego, N. Y.	Little Sandy Creek, N. Y.	.....	\$150	.....	\$150	\$150	.....	2	2	..	2	2
Louisville, Ky.	Madison, Ind.	.....	15	.....	15	15	.....	2	2	..	..	..
Parkersburg, W. Va.	.....	.....	30	.....	30	30	.....	1	1	..	..	..
Cleveland, Ohio.	.....	.....	200	.....	200	200	.....	10	10	..	..	..
Louisville, Ky.	.....	.....	10,000	.....	10,000	9,850	\$150	7	7	..	..	..
Vicksburg, Miss.	Pittsburgh, Pa.	.....	80,000	12,000	92,000	91,000	1,000	48	48	..	..	..
Erie, Pa.	Fishing	.....	25	.....	25	25	.....	2	2	..	2	2
Oswego, N. Y.	On pleasure trip.	.....	60	.....	60	60	.....	3	3	..	..	..
Cleveland, Ohio.	do	.....	800	.....	800	750	50	4	4	..	..	..
Cincinnati, Ohio.	New Orleans, La.	Miscellaneous.	50,000	40,000	90,000	89,200	800	80	80	..	..	..
Buffalo, N. Y.	On pleasure trip.	.....	30	.....	30	30	.....	3	3	..	..	..
Fairport, Ohio.	Fishing	.....	100	.....	100	85	15	4	4	..	..	..
Parkersburg, W. Va.	Evansville, Ind.	Furniture.	15	60	75	75	.....	3	3	..	..	..
Little Salmon, River.	On pleasure trip.	.....	1,500	.....	1,500	1,300	200	12	12	..	..	..
Louisville, Ky.	.....	.....	10	.....	10	10	.....	1	1	..	..	..
.....	.....	.....	689,980	371,865	1,061,845	927,810	134,035	665	665	..	25	74

LAKES HURON AND SUPERIOR.

Fort Williams, Lake Superior.	St. Catharine's, Canada.	.....	3,000	.....	3,000	3,000	.....	5	5	..	..	..
do	do	.....	6,000	.....	6,000	6,000	.....	..	..	..	..	..
Ossineke, Mich.	Alpena, Mich.	.....	15	.....	15	15	.....	2	2	..	..	..
Alpena, Mich.	Toledo, Ohio	Lumber	5,000	4,000	9,000	6,000	3,000	8	8	..	3	9
St. Clair, Mich.	Mount Clemens, Mich.	do	3,000	1,000	4,000	3,300	700	5	5	..	..	..
Cleveland, Ohio	Chicago, Ill.	Coal	12,500	8,900	16,400	15,400	1,000	7	7	..	..	..
AsSable, Mich.	Sand Beach, Mich.	Lumber	1,000	200	1,200	1,160	40	8	8	..	5	5
Buffalo, N. Y.	Harrisville, Mich.	Hay	9,600	800	9,800	7,800	2,000	7	7	..	..	..
Toledo, Ohio.	Alcona, Mich.	Lumber	20,000	500	20,500	19,100	1,400	12	12	..	..	..
AsSable, Mich.	Cleveland, Ohio	Lumber & shingles.	6,000	2,750	8,750	8,650	100	5	5	..	..	..
Cleveland, Ohio	Milwaukee, Wis.	Coal	35,000	1,625	36,625	35,475	1,150	16	16	..	..	..
do	do	do	25,000	2,720	27,720	25,120	2,600	7	7	..	..	..
Alpena, Mich.	Sugar Island, Mich.	Provisions	150	700	850	840	10	2	2	..	2	2
Bayfield, Canada.	Cockburn Isl'd, Lake Michigan.	.....	800	.....	800	400	400	..	..	..	..	..
Bay City, Mich.	.....	.....	2,000	.....	2,000	2,000	.....	5	5	..	..	..
Oswego, N. Y.	Duncan City, Mich.	.....	30,000	.....	30,000	27,000	3,000	11	11	..	..	..
Sheboygan, Wis.	Detour, Mich.	.....	2,000	.....	2,000	1,700	300	3	3	..	..	..

§ Lost steering-wheel and rudder.

|| Came ashore, capsized, and abandoned.

DISTRICT No. 10.—EMBRACING

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1882 May 17	Burnt Cabin Point Reef, one and a half miles northeast of station.	3	Sc. S. P. Ames.....	Bay City, Mich ...	Trudo.....	43
	Total .....		.....	.....	.....	.....

DISTRICT No. 11.—EMBRACING

1881 July 11	Racine Reef, two and a half miles east-southeast of station.	14	Str. Delaware	Erie, Pa.....	Christy ...	1,732
July 12	.....do	14	Yawl.....	Racine, Wis .....	.....	.....
July 21	Seven miles north of station.	14	Three lumber scows.	Sturgeon Bay, Wis	Burnham ..	.....
July 24	Seven hundred yards south-southeast of station.	11	Yawl of sc. J. O. Moss.	Chicago, Ill .....	.....	.....
July 24	.....do	11	Yawl of yacht Anon.	.....do .....	.....	.....
July 24	One and a half miles south of station.	11	Rowboat Lillie .....	.....do .....	.....	.....
July 29	Off harbor piers, one-half mile east of station.	13	Rowboat	Kenosha, Wis .....	.....	.....
Aug. 13	Two miles southeast of station.	16	Sloop	Sheboygan, Wis ..	.....	.....
Aug. 15	Four hundred yards northeast of station.	11	Slp. Frolic	Chicago, Ill	Larson	9
Sept. 4	One-quarter mile west-southwest of station.	8	Scow Nellie	Detroit, Mich	Hancock ..	8
Sept. 4	One-half miles southwest of station.	9	Sc. Sarah Ann Johnson.	South Haven, Mich.	Abrahamson.	14
Sept. 7	South of south pier, Manistee, one-half mile from station.	5	Sc. Christie	Milwaukee, Wis...	Martin	147
Sept. 10	Six miles north of station....	17	Sc. L. B. Shepard	Chicago, Ill	Jenson	221
Sept. 15	White Fish Bay, nine miles north of station.	15	Sc. Napoleon	Milwaukee, Wis...	Hanson ...	109
Sept. 15	.....do	15	do * .....	.....do .....	.....do	109
Sept. 20	Four miles north of station..	11	Sc. Two Brothers.....	.....do	Neilson ...	204
Sept. 29	One-quarter mile north of station.	7	Sc. William Sturgis .	Chicago, Ill	Christian-son.	263
Oct. 11	One-quarter mile east of station.	1	Sc. Lottie Wolf†.....	Albany, N. Y	Kelly	335
Oct. 20	Five miles southeast of station.	13	Sc. North Star.....	Green Bay, Wis ..	Aliston ...	99
Oct. 24	Six miles northeast of station.	11	Sc. Hattie Earl	Racine, Wis	Ross	101
Nov. 2	One hundred feet south of station.	5	Rowboat .....	.....	Thompson ..	.....
Nov. 7	Two Rivers, near station....	17	Sc. Rover	Manitowoc, Wis...	Graham ...	23
Nov. 11	Beaver Harbor, one-quarter mile southwest of station.	1	Str. Toledo†	Detroit, Mich	Scott.....	792
Nov. 11	South pier of Racine Harbor.	14	Sc. Lavinda	Chicago, Ill	Parker	126
Nov. 12	Ten miles east of station....	13	Sc. E. P. Royce	Ludington, Mich..	Britton ...	249
Nov. 16	One-half mile northeast of station.	16	Sc. John Schuette...	Milwaukee, Wis ..	Berenson ..	290
Nov. 17	Scotch Bonnet, five miles north-northwest of station.	8	Sc. Espindola .....	.....do	Peddin-bruch.	54

* Second disaster. Vessel being towed to harbor capsized, with eight men on board, who were rescued by life-saving crew.

† No assistance required of life-saving crew.

LAKES HURON AND SUPERIOR—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days succor afforded.
Grindstone City, Mich.	Bay City, Mich.	Stone	\$1,000	\$55	\$1,055	\$1,035	\$20	3	3	...	...	...
.....	.....	.....	161,465	18,250	179,715	163,995	15,720	106	106	...	10	16

LAKE MICHIGAN.

Chicago, Ill ...	Milwaukee, Wis	Corn	100,000	25,000	125,000	118,000	7,000	25	25	...	...	...
Racine, Wis ...	To str. Delaware on the reef.	.....	50	.....	50	50	.....	2	2	...	...	...
Chicago, Ill ...	Sturgeon Bay, Wis.	.....	2,400	.....	2,400	2,200	200	.....	.....	.....	.....	.....
....do	On pleasure trip.	.....	20	.....	20	20	.....	1	1	...	...	...
....do	do .....	.....	40	.....	40	40	.....	3	3	...	...	...
....do	do .....	.....	30	.....	30	30	.....	1	1	...	1	1
Kenosha, Wis..	do .....	.....	5	.....	5	5	.....	1	1	...	...	...
Sheboygan, Wis.	do .....	.....	75	.....	75	75	.....	3	3	...	...	...
Chicago, Ill ...	.....	.....	400	.....	400	275	125	2	2	...	...	...
Holland, Mich.	Charlevoix, Mich.	Fruit and vegetables.	250	75	325	100	225	2	2	...	...	...
Muskegon, Mich.	Kenosha, Wis..	Lumber & laths.	1,500	150	1,650	1,550	100	2	2	...	2	2
Milwaukee, Wis.	Otter Creek, Mich.	Flour and feed.	3,500	250	3,750	2,500	1,250	5	5	...	5	25
Manistee, Mich	Chicago, Ill	Lumber & shingles.	7,000	3,000	10,000	5,000	5,000	7	7	...	...	...
Pierport, Mich.	Milwaukee, Wis.	Wood and bark.	2,500	800	3,300	2,000	1,300	5	5	...	...	...
....do	do	do .....	.....	.....	.....	.....	.....	8	8	...	...	...
Frankfort, Mich.	Chicago, Ill	Lumber ...	6,000	2,500	8,500	8,500	.....	7	7	...	7	7
Chicago, Ill ...	Ludington, Mich.	.....	4,000	.....	4,000	.....	4,000	7	7	...	...	...
Cheboygan, Mich.	Chicago, Ill	Lumber...	17,000	5,000	22,000	20,000	2,000	8	8	...	...	...
Chicago, Ill ...	Green Bay, Wis.	Corn	3,000	3,400	6,400	6,200	200	5	5	...	...	...
Ludington, Mich.	Chicago, Ill	Posts and shingles.	2,400	1,000	3,400	2,600	800	5	5	...	...	...
Manistee, Mich	.....	.....	25	.....	25	25	.....	3	3	...	...	...
Fish Creek, Wis.	Two Rivers, Wis.	Bark.....	250	215	465	450	15	2	2	...	...	...
Buffalo, N. Y..	Green Bay, Wis.	Merchandise.	40,000	12,000	52,000	51,000	1,000	20	20	...	...	...
Hamilton, Mich	Chicago, Ill	Lumber and shingles.	3,000	1,200	4,200	3,050	1,150	5	5	...	...	...
Ludington, Mich.	do	Lumber...	9,000	4,000	13,000	10,000	3,000	7	7	...	...	...
Recanaba, Mich	South Chicago, Ill.	Iron ore...	16,000	5,000	21,000	20,900	100	7	7	...	...	...
Milwaukee, Wis.	Muskegon, Mich.	.....	1,200	.....	1,200	825	375	3	3	...	2	6

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1881.						
Nov. 18	One-quarter mile east of station.	16	Sc. Nancy Dell	Chicago, Ill	Pritchard .	91
Nov. 18	Fifty yards south of harbor piers, Sheboygan, Wis.	16	Sc. J. O. Thayer	Sheboygan, Wis ..	Miller.....	380
Nov. 20	Near entrance of Muskegon Harbor.	8	Sc. Lincoln Dall.....	Chicago, Ill	Mullen....	207
Nov. 20	Entrance to harbor of Two Rivers, Wis.	17	Sc. Cynthia Gordon .	Sheboygan, Wis ..	Olson	45
Nov. 21	North of north pier, Manistee, one mile west by north of station.	5	Sc. Boaz	Milwaukee, Wis ..	Johnson ..	127
Nov. 21	Forty feet north of north pier, Grand Haven, one-half mile west-southwest of station.	9	Sc. John Bean, jr....	Chicago, Ill	Disher	157
Nov. 22	Bar between harbor piers, Two Rivers, Wis.	17	Steam barge Daisy Day.	Manitowoc, Wis ..	Jacobs	147
Nov. 25	Thirty yards north of north pier.	9	Barge Transfer	Grand Haven, Mich	Gammon .,	361
Nov. 26	Three hundred yards north of station.	16	Sc. L. J. Conway	Milwaukee, Wis ..	Hanson ...	90
1882.						
Mar. 15	Four miles north of station..	17	Str. Grace Patterson	Manistee, Mich ...	Major.....	111
Mar. 27	One-quarter mile east of station.	16	Sc. E. M. Portch.....	Chicago, Ill	Moore	806
Mar. 29	Two hundred yards north of entrance to Muskegon Harbor.	8	Sc. S. B. Pomeroy....	....do	O'Grady ..	430
Apr. 10	One and a half miles northeast of station.	11	Sc. Espindola	Manitowoc, Wis ..	Pedden-bruch.	54
Apr. 19	Evanston south pier, one-half mile south of station.	12	Row-boat	Evanston, Ill	Goodspeed	
May 1	Muskegon, near station.....	8	....do	Port Sherman, Mich.	.....
May 5	One and a half miles south of station.	10	Fish-boat	Saint Joseph, Mich	Gast	
May 9	One mile northeast of station.	13	Sloop	Kenosha, Wis.....	Ryan	
May 9	Three miles north of station.	16	Sc. Sea Star	Racine, Wis	Nelson....	95
May 10	Seven miles south of station.	16	Sc. Lucinda Van Valkenburg.	Chicago, Ill	Waskow..	302
May 11	Two miles south of station	16	Sc. Jessie Winter...	Sheboygan, Wis ..	Larson....	56
May 11	Abreast of Molasses Creek, three and a half miles north of station.	17	Sc. Lottie Mason....	Charlevoix, Mich.	Ferguson .	69
May 19	Three hundred feet east of station.	12	Sloop	Evanston, Ill	Bann	
May 28	One and a fourth miles northeast of station.	15	Sc. Isabella Sands *	Manistee, Mich...	Johnson ..	227
May 30	Five miles from station.....	4	Sc. Rocket .....	....do	Smith	10
May 30	Five miles east of station....	11	Rowboat Jeannette..	Chicago, Ill.....	Hugh.....	
June 3	One mile north of station....	15	Sc. J. P. Decondres..	Charlevoix, Mich.	Blair	146
June 4	Two hundred and fifty yards northwest of station.	10	Sc. Hattie Earl.....	Chicago, Ill.....	Kurth	101
June 8	Near Hamlin piers, one mile south of station.	6	Sc. Maggie Thompson.	....do	Michelson.	155
June 10	Two and a half miles northeast of station.	14	Skiff	Racine, Wis .....	.....
June 13	New breakwater, one mile northeast of station.	11	Sc. J. F. Tracy.....	Chicago, Ill.....	Doyl.....	139
June 14	Ten rods south of station ...	6	Sc. Maggie Thompson.	....do	Michelson.	155
June 18	Five miles southeast of station.	16	Sc. Mocking Bird ...	Sheboygan, Wis ..	Groh	159
June 22	Five hundred yards east of station.	11	Slp. Louise.....	Chicago, Ill.....	Falvy	3

* No assistance required of life-saving crew.

LAKE MICHIGAN—Continued.

Where from.					Total.	Estimated amount saved.	Estimated amount lost.				
Franklin, Mich	Sheboygan, Wis	Lumber...	\$3,000	\$1,200	\$4,200	\$1,900	\$3,200	4	4	4	12
Erie, Pa	do	Coal	20,000	4,200	24,200		24,200	8	8	4	4
Michigan City, Ind.	Muskegon, Mich.		7,000		7,000	4,250	2,750	7	7	7	12
North Bay, Wis	Sheboygan, Wis	Wood	1,500	350	1,850	1,850		2	2		
Milwaukee, Wis.	Pierport, Mich	Feed and supplies.	4,500	1,000	5,500	3,800	1,700	8	6		
Chicago, Ill.	Grand Haven, Mich.		5,000		5,000	4,500	500	8	8		
Two Rivers, Wis.	Ahnapee, Wis.	General	10,000	1,900	11,900	10,900	100	9	9		
Chicago, Ill.	Grand Haven, Mich.		15,000		15,000	15,000		6	6		
Bailey's Harbor, Wis.	Milwaukee, Wis	Wood	4,000	605	4,605	4,405	200	5	5		
Manistee, Mich	do	Lumber	8,000	700	8,700	400	8,300	5	5		
Chicago, Ill.	Rowley's Bay, Wis.		10,000		10,000		10,000	8	8	8	8
do	Muskegon, Mich.		16,000		16,000	15,300	700	9	9		
Grand Haven, Mich.	South Chicago, Ill.	Railroad ties.	1,500	500	2,000	400	1,600	4	4	3	9
Evanston, Ill			40		40	40		1	1		
Port Sherman, Mich.			10		10	10		1	1		
Saint Joseph, Mich.	Fishing	Fish	300	300	600	370	230	3	3		
Kenosha, Wis	On pleasure trip		10		10	10		1	1		
Pescoro, Wis	Chicago, Ill	Posts	2,000	600	3,600	3,500	100	4	4		
Chicago, Ill.	Green Bay, Wis		8,000		8,000	7,000	1,000	7	7		
Muskegon, Mich.	Sheboygan, Wis.	Lumber	3,500	1,000	4,500	4,000	500	8	8	1	1
Milwaukee, Wis.	Charlevoix, Mich.	Provisions	2,500	500	3,000	2,925	75	5	5		
Evanston, Ill	On pleasure trip		45		45	45		2	2		
Manistee, Mich	Milwaukee, Wis.	Lumber	10,000	5,000	15,000	14,700	300	7	7		
do	Charlevoix, Mich.	Shingles	300	100	400	270	130	2	2		
Chicago, Ill	Lake Michigan		50		50	50		3	3		
Charlevoix, Mich.	Milwaukee, Wis.	Wood and ties.	5,000	900	5,900	300	5,600	7	7	7	35
Chicago, Ill.	White Lake		3,000		3,000	2,750	250	6	6	6	9
do	Hamlin, Mich.	Lumber	10,000	3,900	13,900	13,000		7	7		
Racine, Wis	On pleasure trip		15		15	15		1	1	1	1
Chicago, Ill.	Muskegon, Mich.		2,000		2,000	1,600	400	7	7		
do	Hamlin, Mich.		10,000		10,000	10,000		7	7		
White Fish Bay, Wis.	Chicago, Ill.	Railroad ties and posts.	3,500	1,000	4,500	4,500		6	6		
Chicago, Ill.	Lake Michigan		200		200	200		2	2		

DISTRICT No. 11.—EMBRACING

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1882. June 25	Twenty rods southwest of station.	5	Str. Frank Canfield..	Manistee, Mich...	Gnewuchs	48
Total .....		.....	.....	.....	.....	.....

DISTRICT NO. 12.—EMBR

1881. Sept. 17	Columbia River bar, Peacock Spit, one and a half miles west of station.	3	Bk. Rival	San Francisco, Cal	Adams ...	299
Oct. 16	Clatsop Spit, four miles east-southeast of station.	3	Ship Fernglen.....	Sunderland, Eng-land.	Babb	818
Oct. 30	Entrance to Shoalwater Bay, seven miles south-south-west of station.	2	Bk. Lammerlaw	Liverpool, Eng-land.	Pringle ...	746
Oct. 31	South side of entrance to Shoalwater Bay, ten miles south of station.	2	Bk. G. Broughton ...	.....do	Payne	803
Nov. 17	South side of North Channel, Columbia River, two miles south of station.	3	Sp. Edith Lorne.....	Dundee, Scotland.	Watt	803
1882. Mar. 8	Inside of Mile Rock, six and a half miles northeast of station.	7	Sc. George Louis....	San Francisco, Cal	Erickson .	41
June 7	Two and a half miles south of station.	7	Sc. M. Mangles .....	.....do	Young....	41
Total .....		.....	.....	.....	.....	.....

Recapit

Districts.	Total number of disasters.	Total value of vessels.
District No. 1.....	42	\$161, 450
District No. 2.....	31	189, 030
District No. 3.....	30	354, 510
District No. 4.....	39	514, 095
District No. 5.....	33	299, 240
District No. 6.....	10	187, 500
District No. 8.....	13	54, 700
District No. 9	61	689, 980
District No. 10.....	18	161, 465
District No. 11	61	395, 615
District No. 12.....	7	315, 000
Aggregate.....	345	2, 272, 585

* Landed in vessel's life-boat.
† Taken off by tug.
‡ Including 2 persons not on vessels in tables.
§ Including 2 days' succor to persons not on ves-
sels in tables.

|| Including 10 persons not on vessels in tables.
¶ Including 87 days' succor to persons not on
vessels in tables.

LAKE MICHIGAN—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of persons on board.	No. of persons saved.	No. of persons lost.	No. of persons succored at station.	No. of days' succor afforded.
Lying at dock.			\$9,000		\$9,000	\$6,500	\$2,500					
			895,615	\$85,545	481,160	388,985	92,175	811	309	2	58	132

ACING PACIFIC COAST.

San Francisco, Cal.	Knapton, Wash. Ter.	Hay and shingles.	8,000	1,000	9,000	750	8,250	12	12		9	9
Wellington, New Zealand.	Portland, Oreg.		75,000		75,000		75,000	20	20			
Newcastle, Australia.	do	Coal	85,000	5,625	90,625		90,625	15	15		1	3
Brisbane, Australia.	do	do	80,000	1,250	81,250		81,250	18	18			
Portland, Oreg.	Queens town, Ireland.	Wheat	60,000	44,000	104,000		104,000	19	19		19	19
San Francisco, Cal.	Timber Cove, Cal.		4,000		4,000		4,000	4	4			
Rough and Ready, Cal.	San Francisco, Cal.	Lumber	3,000	500	3,500	320	3,180	3	3		3	12
			315,000	52,875	367,875	1,070	366,805	91	91		32	43

ulation.

Total value of cargoes.	Total amount of property involved.	Total amount of property saved.	Total amount of property lost.	Total number of persons on board.	Total number of persons saved.	Total number of persons lost.	Number of shipwrecked persons succored at stations.	Total number of days' succor afforded.	Number of disasters involving total loss of vessels.
\$36,000	\$197,450	\$169,150	\$28,300	206	206		11	11	4
80,350	269,880	207,705	61,675	162	162		51	89	8
97,955	452,465	320,805	132,160	212	212		51	\$165	8
485,067	999,162	393,452	602,710	274	273	1	99	416	6
157,860	457,100	331,085	126,015	222	220	2	71	227	12
100,075	237,575	150,700	86,875	93	86	7	153	190	7
8,300	63,000	49,200	13,800	56	56		1	10	3
371,865	1,061,845	927,810	134,035	665	665		**31	80	6
18,250	179,715	163,995	15,720	106	106		10	16	
85,545	481,160	388,985	92,175	811	309	2	58	132	6
52,375	367,875	1,070	366,805	91	91		82		7
1,493,642	4,766,227	3,106,457	1,659,770	2,398	2,386	12	††468	§§1,379	67

** Including 6 persons not on vessel in tables.
†† Including 6 days' succor o persons not on vessels in tables.

†† Including 18 persons not on vessels in tables.
§§ Including 45 days succor to persons not on vessels in tables.

APPROPRIATIONS AND EXPENDITURES.

STATEMENT

SHOWING THE

APPROPRIATIONS AND EXPENDITURES FOR THE MAINTENANCE OF THE
LIFE-SAVING SERVICE FOR THE FISCAL YEAR ENDING JUNE 30, 1882.

Appropriation—Life-Saving Service, 1882.

For salary of one superintendent for the life-saving stations on the coasts of Maine and New Hampshire, District No. 1.	\$1,000 00	
For salary of one superintendent for the life-saving stations on the coast of Massachusetts, District No. 2.....	1,000 00	
For salary of one superintendent for the life-saving stations on the coasts of Rhode Island and Long Island, District No. 3.....	1,500 00	
For salary of one assistant superintendent for the life-saving stations on the coasts of Rhode Island and Long Island, District No. 3.....	500 00	
For salary of one superintendent for the life-saving stations on the coast of New Jersey, District No. 4.....	1,500 00	
For salary of one superintendent for the life-saving stations on the coasts of Delaware, Maryland, and Virginia, District No. 5.....	1,000 00	
For salary of one superintendent for the life-saving stations on the coasts of Virginia and North Carolina, District No. 6.....	1,000 00	
For salary of one superintendent for the houses of refuge on the coast of Florida, District No. 7.....	1,000 00	
For salary of one superintendent for the life-saving and life-boat stations on the coast of the Gulf of Mexico, District No. 8.....	1,000 00	
For salary of one superintendent for the life-saving and life-boat stations on the coasts of Lakes Ontario and Erie, District No. 9.....	1,000 00	
For salary of one superintendent for the life-saving and life-boat stations on the coasts of Lakes Huron and Superior, District No. 10.....	1,000 00	
For salary of one superintendent for the life-saving and life-boat stations on the coast of Lake Michigan, District No. 11.	1,000 00	
		\$12,500 00
For salary of 196 keepers of life-saving and life-boat stations and houses of refuge, at \$400 each.....		78,400 00
For pay of crews of experienced surfmen employed at the life-saving and life-boat stations, during the period of actual employment; compensation of volunteers at life-saving and life-boat stations for actual and deserving service, rendered upon each occasion of disaster, at such rate, not to exceed ten dollars for each person, as the Secretary of the Treasury may determine; pay of volunteer crews for drill and exercise; fuel for stations and houses of refuge; repairs and outfits for same; supplies and provisions for houses of refuge and for shipwrecked persons succored at stations; traveling expenses of officers under orders from the Treasury Department, and contingent expenses, including freight, storage, repairs to apparatus, medals, labor, stationery, advertising, and miscellaneous expenses that cannot be included under any other head of life-saving stations on the coast of the United States.....		470,000 00
Total.....		560,900 00

Expenditures.

Salary of superintendent of life-saving stations in District No. 1, from July 1, 1881, to June 30, 1882.....	\$1,000 00	
Salary of superintendent of life-saving stations in District No. 2, from July 1, 1881, to June 30, 1882.....	1,000 00	
Salary of superintendent of life-saving stations in District No. 3, from July 1, 1881, to June 30, 1882.....	1,500 00	
Salary of assistant superintendent of life-saving stations in District No. 3, from July 1, 1881, to June 30, 1882.....	500 00	
Salary of superintendent of life-saving stations in District No. 4, from July 1, 1881, to March 31, 1882.....	1,125 00	
Salary of superintendent of life-saving stations in District No. 5, from July 1, 1881, to March 31, 1882.....	750 00	
Salary of superintendent of life-saving stations in District No. 6, from July 1, 1881, to March 31, 1882.....	750 00	
Salary of superintendent of houses of refuge in District No. 7, from July 1 to December 31, 1881, and from April 11 to June 30, 1882	722 55	
Salary of superintendent of life-saving and life-boat stations in District No. 8, from April 19 to June 30, 1882.....	200 57	
Salary of superintendent of life-saving and life-boat stations in District No. 9, from July 1, 1881, to June 30, 1882	1,000 00	
Salary of superintendent of life-saving and life-boat stations in District No. 10, from July 1, 1881, to June 30, 1882.....	1,000 00	
Salary of superintendent of life-saving and life-boat stations in District No. 11, from July 1 to December 22, 1881, and from February 14 to June 30, 1882	853 32	
		\$10,401 44
Pay of 192 keepers, Districts Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, quarter ending September 30, 1881	17,936 98	
Pay of 189 keepers, Districts Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, quarter ending December 31, 1881.....	18,267 35	
Pay of 186 keepers, Districts Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, quarter ending March 31, 1882	18,303 28	
Pay of 112 keepers, Districts Nos. 1, 2, 3, 7, 8, 9, 10, 11, and 12, quarter ending June 30, 1882	11,125 27	
		65,632 88
Pay of surfmen in District No. 1 from September 1, 1881, to April 30, 1882	15,330 00	
Pay of surfmen in District No. 2 from September 1, 1881, to April 30, 1882	32,850 00	
Pay of surfmen in District No. 3 from September 1, 1881, to April 30, 1882	75,982 66	
Pay of surfmen in District No. 4 from September 1, 1881, to April 30, 1882	81,599 80	
Pay of surfmen in District No. 5 from September 1, 1881, to April 30, 1882	24,086 13	
Pay of surfmen in District No. 6 from September 1, 1881, to March 31, 1882.....	43,706 72	
Pay of surfmen in District No. 8 from September 1, 1881, to April 30, 1882.....	8,423 17	
Pay of surfmen in District No. 9 from July 1 to December 15, 1881, and from March 20 to June 30, 1882.....	23,539 73	
Pay of surfmen in District No. 10 from July 1 to December 15, 1881, and from March 20, to June 30, 1882.....	27,362 69	
Pay of surfmen in District No. 11 from July 1 to December 31, 1881, and from April 1 to June 30, 1882.....	37,679 16	
Pay of surfmen in District No. 12 from December 29, 1881, to March 31, 1882	990 96	
Pay of one surfman as acting keeper of Station No. 15, District No. 3, from May 1 to June 30, 1882	90 00	
Pay of one surfman as acting keeper of Station No. 3, District No. 8, from May 1 to June 30, 1882.....	80 00	
Pay of surfmen in District No. 1, for services at wrecks which occurred at periods when crews were not required to reside at the stations	45 00	
Pay of surfmen in District No. 4, for services at wrecks which occurred at periods when crews were not required to reside at the stations	57 00	

Pay of surfmen in District No. 11, for services at wrecks which occurred at periods when crews were not required to reside at the stations	\$4 00	
		\$371, 827 02
Pay of volunteer surfmen in District No. 9, for drill and exercise.....	615 00	
Pay of volunteer surfmen in District No. 9, for services at wrecks	474 00	
Pay of volunteer surfmen in District No. 12, for services at wrecks	138 00	
		1, 227 00
Apparatus	5, 973 32	
Books, charts, stationery, advertising, telegraphing, &c	537 08	
Care of stations pending appointment of keepers	285 78	
Compensation for special services, labor, &c.....	4, 905 99	
Equipments	3, 171 92	
Freight, packing, storage, &c	1, 683 74	
Fuel and water for stations.....	10, 324 71	
Furniture, supplies, &c.....	13, 751 98	
Lithographing and engraving	245 00	
Medals	233 81	
Medicines.....	51 21	
Rebuilding, repair, and improvement of stations.....	3, 918 90	
Recording conveyances.....	5 54	
Removal of stations.....	1, 689 00	
Rent of offices of inspector and superintendents	439 20	
Repairs of apparatus, equipments, and furniture.....	335 81	
Sites for stations.....	380 00	
Stables and forage for horses kept at stations for hauling boats and apparatus	1, 908 07	
Subsistence of persons rescued from wrecked vessels.....	132 93	
Transporting apparatus to and from wrecks where horses are not kept.....	268 00	
Traveling expenses of officers	6, 909 22	
		57, 151 21
Total expenditures from appropriation " Life Saving Service, 1882"		566, 239 55
Balance of available funds, July 1. 1882.....		54, 660 45
		560, 900 00

The amount required to pay the compensation of the superintendents and keepers in Districts Nos. 4 and 5, and the superintendent, keepers, and surfmen in District No. 6, for the quarter ending June 30, 1882, was not issued to the superintendents for disbursement until after July 1, 1882. These expenditures will appear in the proper place in the next annual report.

At the beginning of the fiscal year there remained on hand, available from the appropriations of the preceding year, the following:

	Life-Saving Service, 1881.	Life-Saving Service, contingent expenses, 1881.
Unexpended balances July 1, 1881.....	\$92, 787 21	\$13, 440 96
To which repayments have been made as follows.....	327 07	39 23
Total available funds.....	93, 114 28	13, 480 19

The expenditures from these balances during the last year, made in payment of indebtedness standing over from the preceding year, were as follows :

Life-Saving Service, 1881, available as above		\$93,114 28
Pay of superintendents in Districts Nos. 1, 2, 3, 4, 5, 6, and 7, for services from April 1 to June 30, 1881	\$2,000 00	
Pay of assistant superintendent, District No. 3, for services from April 1, to June 30, 1881.....	125 00	
Pay of superintendent, District No. 11, for services from Oc- tober 1 to December 10, 1880	192 93	
Pay of 140 keepers, Districts Nos. 1, 2, 3, 4, 5, 6, 7, and 8, quarter ending June 30, 1881	13,947 28	
Pay of keeper of Station No. 2, District No. 11, from January 1 to June 30, 1881	200 00	
Pay of surfmen, Districts Nos. 1, 2, 3, 4, 5, and 6, for the month of April, 1881.....	36,820 00	
Pay of surfmen, Districts Nos. 1, 2, 3, 4, 5, and 6, for services at wrecks when crews were not required to reside at the stations.....	267 00	
Pay of one surfman at life-boat Station No. 9, District No. 11, from April 11 to June 30, 1881	106 67	
Pay of one surfman at Station No. 22, District No. 6, from April 8 to April 11, 1881	5 33	
Pay of volunteer crews for services on occasions of disaster.....	40 00	
		53,764 21
Balance unexpended July 1, 1882		39,350 07
		93,114 28

Life-Saving Service, contingent expenses, 1881, available as heretofore stated		13,480 19
Apparatus	\$4,570 58	
Books, charts, stationery, advertising, &c.....	261 23	
Compensation for special services, labor, &c	611 50	
Equipments	549 18	
Erecting guide-boards on Florida coast	1,146 54	
Freight, packing, storage, telegraphing, &c.....	133 63	
Fuel and water for stations.....	6 12	
Furniture, supplies, &c	525 59	
Rebuilding, repair, and improvement of stations	2,927 32	
Removal of stations	100 00	
Rent of offices of inspector and superintendents	179 67	
Repairs of apparatus and equipments	23 75	
Sites for stations	25 00	
Subsistence of persons rescued from wrecked vessels.....	16 80	
Transporting apparatus to and from wrecks where horses are not kept.....	35 00	
Traveling expenses of officers.....	646 68	
		\$11,758 59
Balance unexpended July 1, 1882		1,721 60
		13,480 19

There also remained unexpended at the beginning of the fiscal year, from appropriations of 1880, the following:

	Life-Saving Serv- ice, 1880.	Life-Saving Serv- ice, contingent expenses, 1880.
Balances unexpended and available July 1, 1881	\$82,957 49	\$1,277 48
To which repayment has been made as follows		6 29
Total amounts available for fiscal year, 1882	82,957 49	1,283 77

During the last fiscal year no expenditures were made from appropriation "Life-Saving Service, 1880," and the balance on hand, \$82,957.49, was carried to the surplus fund and covered into the Treasury June 30, 1882.

The expenditures during the year from appropriation "Life-Saving Service, contingent expenses, 1880," were as follows:

Life-Saving Service, contingent expenses, 1880, available as above stated.	\$1,283 77
Advertising	\$1 25
Freight	1 50
Repairs to Station No. 10, District No. 10	6 00
Sites for stations	10 00
Amount paid B. C. Sparrow, superintendent Second Life-Saving District, found due upon settlement of his accounts ...	1 23
	<u>\$19 98</u>
Balance unexpended and carried to surplus fund June 30, 1882....	1,263 79
	<u><u>1,283 77</u></u>

The total net expenditures for the maintenance of the Life-Saving Service during the fiscal year ending June 30, 1882, were, therefore, as follows:

Life-Saving Service, 1882	\$506,239 55
Life-Saving Service, 1881	53,764 21
	<u>560,003 76</u>
Less repayment to appropriation Life-Saving Service, 1881..	327 07
	<u>Net expenditures</u>
	\$559,676 69
Life-Saving Service, contingent expenses, 1881	11,758 59
Life-Saving Service, contingent expenses, 1880	19 98
	<u>11,778 57</u>
Less repayments to appropriations Life-Saving Service, contingent expenses, 1880 and 1881	45 52
	<u>Net expenditures</u>
	11,733 05
Total net expenditures of the service	<u><u>571,409 74</u></u>

There remained standing to the credit of the respective appropriations at the close of the fiscal year ending June 30, 1882, available as heretofore stated, the following balances:

Life-Saving Service, 1881	\$39,350 07
Life-Saving Service, 1882	54,660 45
Life-Saving Service, contingent expenses, 1881	1,721 60

The foregoing statement of the net expenditures of the Life-Saving Service, for the fiscal year ending June 30, 1882, differs from the expenditures by warrants in the following particulars:

Net expenditures by warrants	\$571,822 25
From which deduct the amount of the following items:	
Amounts in hands of disbursing clerk, June 30, 1882:	
Life-Saving Service, 1881	\$682 88
Life-Saving Service, 1882	391 27
Life-Saving Service, contingent expenses, 1881	1,375 84
	<u>2,449 99</u>
Less amounts in hands of disbursing clerk, June 30, 1881, as shown on page 230 of the Report for 1881	2,037 48
Total amount of differences	<u>412 51</u>
Net expenditures from the appropriations for the year	<u><u>571,409 74</u></u>

UNITED STATES LIFE-SAVING SERVICE.

To the foregoing statement of expenditures for the maintenance of the Life-Saving Service may be added the following:

APPROPRIATION.

Salaries, office Life-Saving Service\$23,480 00

EXPENDITURES.

Compensation of officers and employés in office of Life-Saving Service	\$23,476 74	
Amount in hands of disbursing-clerk unexpended	3 26	
	<hr/>	23,480 00

INSTRUCTIONS TO MARINERS IN CASE OF SHIPWRECK.

INSTRUCTIONS TO MARINERS IN CASE OF SHIPWRECK,
WITH
INFORMATION CONCERNING THE LIFE-SAVING STATIONS UPON THE
COASTS OF THE UNITED STATES.

Prepared by **LIEUTENANT C. H. McLELLAN, U. S. R. M.,** *Assistant Inspector Life-Saving Stations, under the direction of the General Superintendent.*

GENERAL INFORMATION.

Life-saving stations, life-boat stations, and houses of refuge are located upon the Atlantic and Pacific seaboard of the United States, the Gulf of Mexico, and the Lake coasts, as shown in the list of stations following, the latitude and longitude being given so far as determined.

All stations on the Atlantic coast from the eastern extremity of the State of Maine to Cape Fear, North Carolina, are manned annually by crews of experienced surfmen from the 1st of September until the 1st of May following.

Upon the Lake coasts the stations are manned from the opening until the close of navigation, and upon the Pacific coast they are open the year round, but, with the exception of Stations Nos. 3 and 7, are not manned, depending upon volunteer effort from the neighboring people in case of shipwreck.

All life-saving and life-boat stations are fully supplied with boats, wreck-gun, beach apparatus, restoratives, &c.

Houses of refuge are supplied with boats, provisions, and restoratives, but not manned by crews; a keeper, however, resides in each throughout the year, who, after every storm, is required to make extended excursions along the coast with a view of ascertaining if any shipwreck has occurred and finding and succoring any persons that may have been cast ashore.

Houses of refuge are located exclusively upon the Florida coast, where the requirements of relief are widely different from those of any other portion of the seaboard.

Most of the life-saving and life-boat stations are provided with the International Code of Signals, and vessels can, by opening communication, be reported or obtain the latitude and longitude of the station, where determined, information as to the weather probabilities in most cases, or, if crippled or disabled, a steam-tug or revenue-cutter will be telegraphed for, where facilities for telegraphing exist, to the nearest port, if requested.

All services are performed by the life-saving crews without other

compensation than their wages from the Government, though, in view of the meagerness of their pay, they are not prohibited from receiving such rewards for labor performed or risks incurred at wrecks as owners or masters of vessels or other persons may see fit to voluntarily bestow upon them, but *they are strictly forbidden to solicit such rewards.*

Destitute seafarers are provided with food and lodgings at the nearest station by the Government as long as necessarily detained by the circumstances of shipwreck.

The station crews patrol the beach from two to four miles each side of their stations four times between sunset and sunrise, and if the weather is foggy the patrol is continued through the day.

Each patrolman carries Coston signals. Upon discovering a vessel standing into danger, he ignites one of them, which emits a brilliant red flame of about two minutes' duration, to warn her off, or, should the vessel be ashore, to let her crew know that they are discovered and assistance is at hand.

If the vessel is not discovered by the patrol immediately after striking, rockets or flare-up lights should be burned, or, if the weather be foggy, guns should be fired to attract attention, as the patrolman may be some distance away on the other end of his beat.

Masters are particularly cautioned, if they should be driven ashore anywhere in the neighborhood of the stations, especially on any of the sandy coasts where there is not much danger of vessels breaking up immediately, to remain on board until assistance arrives, and under no circumstances should they attempt to land through the surf in their own boats until the last hope of assistance from the shore has vanished. Often when comparatively smooth at sea a dangerous surf is running which is not perceptible four hundred yards off shore, and the surf when viewed from a vessel never appears as dangerous as it is. Many lives have unnecessarily been lost by the crews of stranded vessels being thus deceived and attempting to land in the ships' boats.

The difficulties of rescue by operations from the shore are greatly increased in cases where the anchors are let go *after entering the breakers*, as is frequently done, and the chances of saving life correspondingly lessened.

INSTRUCTIONS.

RESCUE WITH THE LIFE-BOAT OR SURF-BOAT.

The patrolman, after discovering your vessel ashore and burning a Coston signal, hastens to his station for assistance. If the use of a boat is practicable, either the large life-boat is launched from its ways in the station and proceeds to the wreck by water, or the lighter surf-boat is hauled overland to a point opposite the wreck and launched, as circumstances may require.

Upon the boat reaching your vessel, the directions and orders of the keeper (who always commands and steers the boat) should be implicitly obeyed. Any headlong rushing and crowding should be prevented, and the captain of the vessel should remain on board, to preserve order, until every other person has left.

Women, children, helpless persons, and passengers should be passed into the boat first.

Goods or baggage will positively not be taken into the boat until all are landed. If any be passed in against the keeper's remonstrance he is fully authorized to throw the same overboard.

RESCUE WITH THE BREECHES-BUOY OR LIFE-CAR.

Should it be inexpedient to use either the life-boat or surf-boat, recourse will be had to the wreck-gun and beach apparatus for the rescue by the breeches-buoy or the life-car.

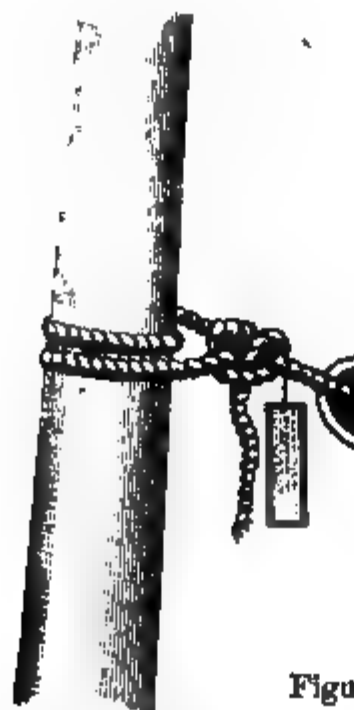
A shot with a small line attached will be fired across your vessel.

Get hold of the line as soon as possible and haul on board until you get a tail-block with a whip or endless line rove through it. This tail-block should be hauled on board as quickly as possible to prevent the whip drifting off with the set or fouling with wreckage, &c. Therefore, if you have been driven into the rigging where but one or two men can work to advantage, cut the shot-line and run it through some available block, such as the throat or peak-halliards block or any block which will afford a clear lead, or even between the ratlines, that as many as possible may assist in hauling.

Attached to the tail-block will be a tally-board, with the following directions in English on one side and French on the other:

"Make the tail of the block fast to the lower mast, well up. If the masts are gone, then to the best place you can find. Cast off shot-line, see that the rope in the block runs free, and show signal to the shore."

The above instructions being complied with, the result will be as shown in Figure 1.



Figure

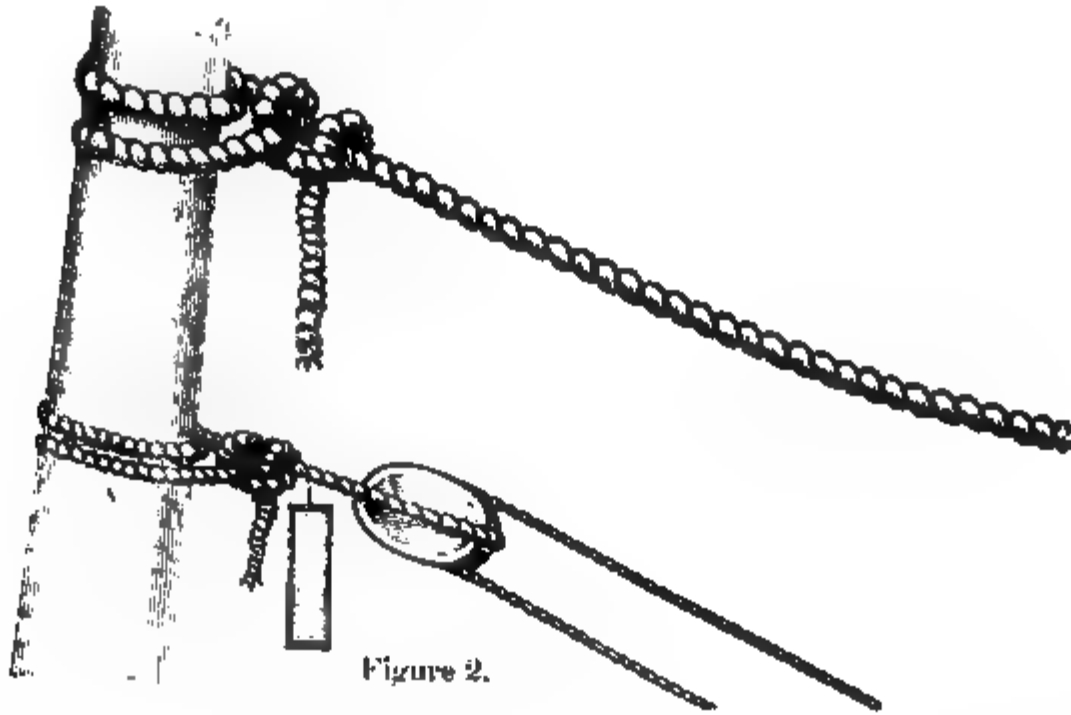
As soon as your signal is seen a three-inch hawser will be bent on to the whip and hauled off to your ship by the life-saving crew.

If circumstances will admit, you can assist the life-saving crew by manning that part of the whip to which the hawser is bent and hauling with them.

When the end of the hawser is got on board a tally-board will be found attached, bearing the following directions in English on one side and French on the other:

"Make this hawser fast about 2 feet above the tail-block; see all clear, and that the rope in the block runs free, and show signal to the shore."

These instructions being obeyed, the result will be as shown in Figure 2.



Take particular care that there are no turns of the whip-line round the hawser before making the hawser fast.

When the hawser is made fast, the whip cast off from the hawser, and your signal seen by the life-saving crew, they will haul the hawser taut and by means of the whip will haul off to your ship a breeches-buoy suspended from a traveler-block, or a life-car from rings, running on the hawser.

Figure 3 represents the apparatus rigged, with the breeches-buoy hauled off to the ship.

If the breeches-buoy be sent, let one man immediately get into it, thrusting his legs through the breeches. If the life-car, remove the hatch, place as many persons into it as it will hold (four to six), and secure the hatch on the outside by the hatch-bar and hook, signal as before, and the buoy or car will be hauled ashore. This will be repeated

until all are landed. On the last trip of the life-car the hatch must be secured by the inside hatch-bar.

In many instances two men can be landed in the breeches-buoy at the same time, by each putting a leg through a leg of the breeches and holding on to the lifts of the buoy.

Children when brought ashore by the buoy should be in the arms of older persons or securely lashed to the buoy. Women and children should be landed first.

In signaling as directed in the foregoing instructions, if in the daytime, let one man separate himself from the rest and swing his hat, a handkerchief, or his hand; if at night, the showing of a light, and concealing it once or twice, will be understood; and like signals will be made from the shore.

Circumstances may arise, owing to the strength of the current or set, or the danger of the wreck breaking up immediately, when it would be impossible to send off the hawser. In such a case a breeches-buoy or life-car will be hauled off instead by the whip, or sent off to you by the shot-line, and you will be hauled ashore through the surf.

If your vessel is stranded during the night and discovered by the patrolman, which you will know by his burning a brilliant red light, keep a bright lookout for signs of the arrival of the life-saving crew abreast of your vessel.

From one to four hours may intervene between the burning of the light and their arrival, as the patrolman may have to return to his station, perhaps three or four miles distant, and the life-saving crew draw the apparatus or surf-boat through the sand or over bad roads to where your vessel is stranded.

Lights on the beach will indicate their arrival, and the sound of cannon-firing from the shore may be taken as evidence that a line has been fired across your vessel. Therefore, upon hearing the cannon, make strict search aloft, fore and aft, for the shot-line, for it is almost certain to be there. Though the movements of the life-saving crew may not be perceptible to you, owing to the darkness, your ship will be a good mark for the men experienced in the use of the wreck-gun, and the first shot seldom fails.

RECAPITULATION.

Remain by the wreck until assistance arrives from the shore, unless your vessel shows signs of immediately breaking up.

If not discovered immediately by the patrol, burn rockets, flare-up, or other lights, or, if the weather be foggy, fire guns.

Take particular care that there are no turns of the whip-line round the hawser before making the hawser fast.

Send the women, children, helpless persons, and passengers ashore first.

Make yourself thoroughly familiar with these instructions, and remember that on your coolness and strict attention to them will greatly depend the chances of bringing you and your people safely to land.

LIST OF LIFE-SAVING DISTRICTS AND STATIONS

ON THE

COASTS OF THE UNITED STATES.

LIFE-SAVING DISTRICTS AND STATIONS ON THE
COASTS OF THE UNITED STATES.

FIRST DISTRICT.

EMBRACING COASTS OF MAINE AND NEW HAMPSHIRE.

No.	Name.	State.	Locality.	Approximate position.					
				Latitude, north.			Longitude, west.		
				°	'	"	°	'	"
1	West Quoddy Head ..	Me....	Carrying Point Cove	44	48	25	66	58	25
2	Cross Island	Me....	Off Machiasport	44	37	28	67	16	20
3	Crumple Island	Me....	Off Jonesborough	44	28	30	67	37	00
4	Little Cranberry Island	Me....	Off Mount Desert	Not determined.					
5	Whitehead Island	Me....	Near Whitehead light	43	58	41	69	07	37
6	Biddeford Pool	Me....	Fletcher's Neck	43	26	32	70	20	08
7	Locke's Point	N. H..	Rye Beach	42	59	31	70	45	00

SECOND DISTRICT.

EMBRACING COAST OF MASSACHUSETTS.

1	Plum Island	Mass.	Near Newburyport, 3 miles distant	42	47	05	70	48	41
2	Davis Neck	Mass.	Near Annisquam light	42	40	03	70	40	03
3	Scituate	Mass.	South end of fourth cliff	Not determined.					
4	Gurnet	Mass.	8 miles northeast of Plymouth	42	00	10	70	35	50
5	Manomet Point	Mass.	7 miles southeast of Plymouth	41	55	29	70	32	18
6	Race Point	Mass.	½ mile northeast of Race Point light, Cape Cod.	42	04	12	70	13	58
7	Peaked Hill Bar	Mass.	2½ miles northeast of Provincetown, Cape Cod.	42	04	34	70	08	54
8	Highlands	Mass.	½ mile northwest of light, Cape Cod....	42	02	47	70	04	05
9	Parment River.	Mass.	3½ miles south of Highland light	41	59	59	70	00	53
10	Cahoon's Hollow	Mass.	2½ miles east of Wellfleet	41	56	38	69	58	40
11	Nauset	Mass.	1½ miles south of lights	41	50	29	69	56	20
12	Orleans	Mass.	Abreast of Ponchet Island	41	45	31	69	55	31
13	Chatham	Mass.	2 miles north of Chatham light	41	42	12	69	56	34
14	Monomoy	Mass.	2 miles north of Monomoy light	41	36	00	69	58	41
15	Surfside	Mass.	2½ miles south of the town of Nantucket.	41	14	33	70	08	36

THIRD DISTRICT.

EMBRACING COASTS OF RHODE ISLAND AND LONG ISLAND.

1	Narragansett Pier	R. I...	Northern part of the town	41	25	59	71	27	04
2	Point Judith	R. I...	Near light-house	41	21	38	71	28	4
3	Watch Hill	R. I...	do	Not determined.					
4	New Shoreham	R. I...	Block Island, east side, near landing...	41	10	30	71	33	07
5	Block Island	R. I...	Block Island, west side, near Dicken's Point.	41	09	41	71	36	13
6	Montauk Point	N. Y..	At the light	41	04	07	71	51	00
7	Ditch Plain	N. Y..	3 miles southwest of Montauk light ...	41	02	19	71	54	38
8	Hither Plain	N. Y..	½ mile southwest of Fort Pond	41	01	33	71	57	26
9	Napeague	N. Y..	Abreast Napeague Harbor	40	59	38	72	02	24
10	Amagansett	N. Y..	Abreast of the town	40	58	05	72	07	24
11	Georgica	N. Y..	1 mile south of East Hampton	40	56	35	72	11	19
12	Bridgehampton	N. Y..	2 miles south of town	40	54	06	72	17	41
13	Southampton	N. Y..	¾ mile south of town	40	52	13	72	23	07
14	Shinnecock	N. Y..	3 miles from the head of Shinnecock Bay.	40	50	40	72	27	30
15	Tiana	N. Y..	4 miles east of Quogue	40	49	36	72	31	16

LIFE-SAVING DISTRICTS AND STATIONS ON COASTS OF THE UNITED STATES.
THIRD DISTRICT—Continued.
Embracing Coasts of Rhode Island and Long Island—Continued.

No.	Name.	State.	Locality.	Approximate position.					
				Latitude, north.			Longitude, west.		
				°	'	"	°	'	"
16	Quogue.....	N. Y..	½ mile south of the village.....	40	48	23	72	35	41
17	West Hampton.....	N. Y..	1½ miles southwest of Petunk village ..	40	47	52	72	39	01
18	Moriches.....	N. Y..	2½ miles southwest of Speonk village...	40	46	25	72	42	49
19	Forge River.....	N. Y..	3½ miles south of Moriches.....	40	44	56	72	48	12
20	Smith's Point.....	N. Y..	Abreast of the point.....	40	43	51	72	52	20
21	Bellport.....	N. Y..	4 miles south of the village.....	40	42	42	72	55	46
22	Blue Point.....	N. Y..	4½ miles south of Patchogue.....	40	40	40	73	01	15
23	Lone Hill.....	N. Y..	4½ miles south of Sayville.....	40	39	46	73	04	27
24	Point of Woods.....	N. Y..	5 miles south of Islip.....	40	38	55	73	08	11
25	Fire Island.....	N. Y..	East side Fire Island Inlet.....	40	37	34	73	13	36
26	Oak Island, east end..	N. Y..	.....	40	38	15	73	17	39
27	Oak Island, west end..	N. Y..	.....	40	37	16	73	22	24
28	Jones' Beach, east end	N. Y..	.....	40	36	27	73	25	20
29	Jones' Beach, west end.	N. Y..	6 miles south of South Oyster Bay.....	40	36	10	73	28	43
30	Short Beach.....	N. Y..	½ mile east of Jones' Inlet.....	Not determined.					
31	Discontinued.....		.....					
32	Long Beach, east end..	N. Y..	2 miles west of Jones' Inlet.....	40	35	18	73	35	47
33	Long Beach, west end..	N. Y..	Near Lucy's Inlet.....	40	35	03	73	39	09
34	Hog Island, west end..	N. Y..	Near Hog Island Inlet.....	40	35	22	73	43	50
35	Rockaway Beach.....	N. Y..	Near the village of Rockaway.....	40	35	25	73	46	55
36	.....do.....	N. Y..	West end.....	40	34	15	73	51	08
37	Coney Island.....	N. Y..	Manhattan Beach.....	40	34	21	73	56	06
38	Eaton's Neck.....	N. Y..	East side entrance to Huntington Bay, Long Island Sound.	40	57	12	73	23	45

FOURTH DISTRICT.

EMBRACING COAST OF NEW JERSEY.

1	Sandy Hook.....	N. J..	383 yards east of main light.....	40	27	42	73	59	34
2	Spermaceti Cove.....	N. J..	East of the upper end of cove.....	40	25	39	73	58	50
3	Seabright.....	N. J..	About a mile south of Navesink lights	40	22	46	73	58	11
4	Monmouth Beach.....	N. J..	3½ miles south of Navesink lights.....	40	20	30	73	58	07
5	Long Branch.....	N. J..	Near Green's Pond.....	40	16	36	73	58	43
6	Deal.....	N. J..	Near the town, 328 yards north of Great Pond.	40	14	00	73	59	29
7	Shark River.....	N. J..	Near the mouth of Shark River.....	40	11	25	74	00	19
8	Wreck Pond.....	N. J..	2½ miles below Shark River.....	40	00	20	74	00	58
9	Squan Beach.....	N. J..	1 mile southeast of Squan village.....	40	06	52	74	01	43
10	Point Pleasant.....	N. J..	At the head of Barnegat Bay.....	40	03	58	74	02	20
11	Swan Point.....	N. J..	2½ miles below the head of Barnegat Bay.	40	01	37	74	03	15
12	Green Island.....	N. J..	5 miles below the head of Barnegat Bay.	39	59	06	74	03	33
13	Tom's River.....	N. J..	On the beach abreast of its mouth.....	39	56	15	74	04	30
14	Island Beach.....	N. J..	.....	39	53	42	74	04	57
15	Forked River.....	N. J..	.....	39	51	06	74	05	16
16	Island Beach.....	N. J..	North side of Barnegat Inlet.....	39	48	08	74	05	40
17	Barnegat.....	N. J..	South side of Barnegat Inlet.....	39	45	34	74	06	12
18	Loveladies Island....	N. J..	On the beach abreast of the islands....	39	43	47	74	07	01
19	Harvey Cedars.....	N. J..	.....	39	40	23	74	08	13
20	Ship Bottom.....	N. J..	.....	39	38	13	74	10	42
21	Long Beach.....	N. J..	.....	39	35	03	74	13	03
22	Bond's.....	N. J..	.....	39	31	59	74	15	16
23	Little Egg.....	N. J..	Near the light north of inlet.....	39	30	05	74	17	28
24	Little Beach.....	N. J..	South side of Little Egg Inlet.....	39	27	23	74	19	28
25	Brigantine.....	N. J..	5½ miles above Absecom light.....	39	25	23	74	20	02
26	Discontinued.....		.....					
27	Atlantic City.....	N. J..	Near Absecom light.....	39	21	57	74	24	31
28	Absecom.....	N. J..	3 miles below the light.....	39	20	45	74	27	27
29	Great Egg.....	N. J..	6 miles below the light.....	39	19	02	74	30	51
30	Beazley's.....	N. J..	South side of the inlet.....	39	17	10	74	34	30
31	Peck's Beach.....	N. J..	3½ miles above Corson's Inlet.....	39	14	47	74	36	29
32	Corson's Inlet.....	N. J..	Near the inlet, north side.....	39	12	59	74	38	06
33	Ludlam's Beach.....	N. J..	3½ miles above Townsend's Inlet.....	39	09	42	74	40	41
34	Townsend's Inlet....	N. J..	Near the inlet, north side.....	39	07	30	74	42	21
35	Stone Harbor.....	N. J..	3½ miles above Hereford Inlet.....	39	03	35	74	44	50
36	Hereford Inlet.....	N. J..	Near Hereford light.....	39	00	14	74	46	55
37	Turtle Gut.....	N. J..	6 miles above Cape Island City.....	38	58	39	74	50	34
38	Two-Mile Beach.....	N. J..	4 miles above Cape Island City.....	38	57	08	74	51	00
39	Cape May.....	N. J..	2 miles above Cape Island City.....	38	56	01	74	54	00
40	.....do.....	N. J..	Near the light.....	38	55	10	74	57	36
41	Bay Shore.....	N. J..	2½ miles west of Cape Island City.....	38	56	37	74	58	03

LIFE-SAVING DISTRICTS AND STATIONS ON COASTS OF THE UNITED STATES.

FIFTH DISTRICT.

EMBRACING COAST BETWEEN CAPE HENLOPEN AND CAPE CHARLES.

No.	Name.	State.	Locality.	Approximate position.	
				Latitude, north.	Longitude, west.
1	Cape Henlopen	Del .....	.....	38 46 38	75 04 43
2	Rehoboth Beach	Del .....	.....	Not determined.	
3	Indian River Inlet	Del .....	.....	38 36 40	75 04 30
4	Ocean City	Md	Just north of town	Not determined.	
5	Green Run Inlet	Md .....	.....	38 03 15	75 13 15
6	Pope's Island	Md .....	.....	Not determined.	
7	Assateague Beach	Va.	Abreast of Assateague Light	37 54 10	75 19 35
8	Cedar Inlet	Va.	South end of Cedar Island	37 35 10	75 36 20
9	Hog Island	Va.	South end of Hog Island	37 26 45	75 41 00
10	Cobb's Island	Va.	South end of Cobb's Island	37 17 20	75 46 15
11	Smith's Island	Va.	South end of Smith's Island	37 06 20	75 55 00

SIXTH DISTRICT.

EMBRACING COAST BETWEEN CAPE HENRY AND CAPE FEAR.

1	Cape Henry	Va. ....	.....	36 55 30	76 00 30
2	Seatack	Va. ....	.....	Not determined.	
3	Dam Neck Mills	Va. ....	.....	Do.	
4	Little Island	Va. ....	.....	Do.	
5	False Cape	Va. ....	.....	36 38 15	75 53 00
6	Deal's Island	N. C. ....	.....	Not determined.	
7	Old Currituck Inlet	N. C. ....	.....	Do.	
8	Jones' Hill	N. C.	Currituck Beach	36 22 00	75 49 00
9	Poyner's Hill	N. C. ....	.....	Not determined.	
10	Caffey's Inlet	N. C. ....	.....	Do.	
11	Paul Gamble's Hill	N. C. ....	.....	Do.	
12	Kitty Hawk	N. C. ....	.....	Do.	
13	Kill Devil Hills	N. C. ....	.....	Do.	
14	Nag's Head	N. C.	8 miles north of Oregon Inlet	35 55 30	75 36 15
15	Tommy's Hummock	N. C. ....	.....	Not determined.	
16	Bodie's Island	N. C.	1/2 mile south of Oregon Inlet	35 47 30	75 32 00
17	Pea Island	N. C. ....	.....	Not determined.	
18	Chicamcomico	N. C.	5 miles south of New Inlet	35 35 30	75 27 30
19	Cedar Hummock	N. C. ....	.....	Not determined.	
20	Little Kinnakeet	N. C. ....	.....	35 24 30	75 28 30
21	Big Kinnakeet	N. C.	6 miles north of Cape Hatteras light-house.	Not determined.	
22	Creed's Hill	N. C.	4 1/2 miles west of Cape Hatteras light-house.	Do.	
23	Hatteras	N. C.	3 miles east of Hatteras Inlet	Do.	
24	Cape Lookout	N. C.	Station not yet built .....	.....
25	Cape Fear	N. C.	South end of Smith's Island	Not determined.	

SEVENTH DISTRICT.

EASTERN COAST OF FLORIDA.

1	Thirteen miles north of Indian River Inlet	Fla. ....	.....	Not determined.	
2	Gilbert's Bar	Fla.	Saint Lucie Rocks	Do.	
3	Orange Grove	Fla. ....	.....	Do.	
4	Fort Lauderdale	Fla. ....	.....	Do.	
5	Biscayne Bay	Fla. ....	.....	Do.	

EIGHTH DISTRICT.

EMBRACING GULF COAST OF THE UNITED STATES.

1	Sabine Pass	Texas. ....	.....	Not determined.	
2	Galveston, east end of island.	Texas.	Station not yet built .....	.....
3	Galveston, west end of island.	Texas. ....	.....	Not determined.	
4	Pass Cavallo	Texas. ....	.....	Do.	
5	Aransas Pass	Texas. ....	.....	Do.	
6	Brazos Santiago	Texas. ....	.....	Do.	

UNITED STATES LIFE-SAVING SERVICE.

LIFE-SAVING DISTRICTS AND STATIONS ON COASTS OF THE UNITED STATES.

NINTH DISTRICT.

EMBRACING LAKES ERIE AND ONTARIO.

No.	Name.	State.	Locality.
1	Big Sandy Creek	N. Y.	East side of mouth of Big Sandy Creek, Lake Ontario.
2	Salmon Creek	N. Y.	East side of mouth of Salmon Creek, Lake Ontario.
3	Oswego	N. Y.	Entrance of Oswego Harbor, Lake Ontario.
4	Charlotte	N. Y.	Entrance of Charlotte Harbor, Lake Ontario.
5	Buffalo	N. Y.	Buffalo Harbor, Lake Erie.
6	Presque Isle	Pa.	Entrance of Erie Harbor, Lake Erie.
7	Fairport	Ohio	Entrance of Fairport Harbor, Lake Erie.
8	Cleveland	Ohio	Entrance of Cleveland Harbor, Lake Erie.
9	Marblehead Point	Ohio	Marblehead Island, near Quarry Docks, Lake Erie.
10	Louisville	Ky.	Near falls of the Ohio River, Louisville, Ky.

TENTH DISTRICT.

EMBRACING LAKES HURON AND SUPERIOR.

1	Sand Beach Harbor	Mich.	Inside the harbor, Lake Huron.
2	Point aux Barques	Mich.	Near light-house, Lake Huron.
3	Port Austin	Mich.	One mile northwest of Grindstone City, Lake Huron.
4	Ottawa Point (Tawas) ..	Mich.	Near light-house, Lake Huron.
5	Sturgeon Point	Mich.	Do.
6	Thunder Bay Island	Mich.	Do.
7	Middle Island	Mich.	North end of island, Lake Huron.
8	Forty-Mile Point	Mich.	Hammond's Bay, Lake Huron.
9	Vermillion Point	Mich.	Lake Superior.
10	7 miles west of Vermillion Point.	Mich.	Do.
11	Two-Heart River	Mich.	Near mouth of Two-Heart River, Lake Superior.
12	Sucker River	Mich.	Near mouth of Sucker River, Lake Superior.
13	Ship-Canal	Mich.	Near mouth of Portage Lake and Lake Superior Ship-Canal, Lake Superior; not yet built.

ELEVENTH DISTRICT.

LAKE MICHIGAN.

1	Beaver Island	Mich.	Near light-house.
2	North Manitou Island	Mich.	Near Pickard's wharf.
3	Sleeping Bear Point	Mich.	Station not yet built.
4	Point au Bec Sables	Mich.	Near light-house.
5	Manistee	Mich.	In the harbor.
6	Grand Point au Sable	Mich.	Near light-house.
7	Ludington	Mich.	In the harbor.
8	Muskegon	Mich.	In the harbor at Port Sherman.
9	Grand Haven	Mich.	Entrance of harbor.
10	Saint Joseph	Mich.	In the harbor.
11	Chicago	Ill.	Do.
12	Grosse Point	Ill.	Evanston, Ill., on Northwestern University Grounds.
13	Kenosha	Wis.	In the harbor on Washington Island.
14	Racine	Wis.	In the harbor.
15	Milwaukee	Wis.	Near entrance of harbor.
16	Sheboygan	Wis.	Entrance of harbor.
17	Two Rivers	Wis.	Do.
18	Bayley's Harbor	Wis.	Station not yet built.

TWELFTH DISTRICT.

PACIFIC COAST.

1	Neah Bay	Wash. T.	On Indian reservation.
2	Shoalwater	Wash. T.	Near light-house boat-landing.
3	Cape Disappointment	Wash. T.	Baker's Bay.
4	Cape Arago	Oreg.	Cooe Bay, near light-house.
5	Humboldt Bay	Cal.	Near light-house.
6	Bolinas Bay	Cal.	
7	Golden Gate Park	Cal.	On beach in Golden Gate Park, San Francisco.
8	Point Concepcion	Cal.	Station not yet built.

A B S T R A C T S

OF

RETURNS OF WRECKS AND CASUALTIES TO VESSELS

WHICH HAVE OCCURRED ON AND NEAR THE

COASTS AND ON THE RIVERS OF THE UNITED STATES,

AND TO

AMERICAN VESSELS AT SEA AND ON THE COASTS
OF FOREIGN COUNTRIES,

DURING THE

FISCAL YEAR ENDING JUNE 30, 1882.

WRECKS, CASUALTIES, AND COLLISIONS AT HOME AND ABROAD.

REMARKS EXPLANATORY OF THE WRECK STATISTICS FOR THE YEAR 1881-'82.

The following is the ninth annual statement of wrecks and casualties which have occurred on or near the coasts and on the rivers of the United States, and to American vessels at sea or on the coasts of foreign countries.

The statistics relating to disasters upon our own coasts are compiled from reports obtained and received through the officers of the customs, in compliance with the acts of June 20, 1874, and June 18, 1878.

Those relating to disasters which have occurred to American shipping in foreign waters are derived from reports received from our consular officers abroad and through the courtesy of officers of foreign governments; an interchange of such information having been effected, through the Department of State, with most other maritime nations.

In the preparation of the accompanying tables it has been found advisable, in order to facilitate reference, to make the following general divisions:

I. Disasters occurring on the Atlantic and Gulf coasts of the United States, embracing—

1. All casualties outside of, but in proximity to, the coast-line;
2. All casualties occurring in the bays and harbors adjacent to the coasts named;
3. All casualties occurring in or near the mouths of rivers emptying into the ocean or Gulf.

II. Disasters occurring upon the Pacific coast of the United States, including those occurring in adjacent waters, as in the first division.

III. Disasters occurring on the great lakes, embracing—

1. All casualties occurring on Lakes Superior, Michigan, Huron, Saint Clair, Erie, or Ontario, reported by officers of the customs, whether in waters under the jurisdiction of the United States or of Great Britain;
2. All casualties occurring in rivers, straits, &c., connecting the several lakes named;
3. All casualties occurring in the harbors of any of said lakes, or in or near the mouths of rivers emptying into them, within the United States.

IV. Disasters occurring in rivers within the United States, embracing all rivers except those referred to in the foregoing division.

V. Disasters occurring to American shipping at sea or in foreign waters.

The disasters embraced in the foregoing divisions are classified as follows, viz:

1. *Foundering*s—embracing founderingings which resulted from the leak-

ing or capsizing of vessels, but not those which resulted from collision, stranding, or striking any sunken wreck, or against piers, snags, or ice.

2. *Strandings*—embracing disasters resulting from running aground, striking a rock, reef, bar, or other natural object, although the vessel may have foundered as a result of such casualty.

3. *Collisions*—embracing all collisions between vessels only.

4. *Other causes*—embracing disasters resulting from various causes, as follows, viz :

Fire, irrespective of result;

Scuttling, or any intentional damage to vessel;

Collisions with fields or quantities of ice, although vessel may be sunk thereby ;

Striking on sunken wrecks, anchors, buoys, piers, or bridges ;

Leakage (except when vessel foundered or went ashore for safety) ;

Loss of masts, sails, boats, or any portion of vessel's equipments ;

Capsizing, when vessel did not sink ;

Damage to machinery ;

Fouling of anchors ;

Striking of lightning ;

Explosion of boilers ;

Breakage of wheels ;

Also water-logged, missing, and abandoned vessels.

Since the publication of the annual statement for the fiscal year ending June 30, 1881, information has been received of the occurrence of disasters during that year to one hundred and thirty-seven American vessels and the loss of fifty-five lives. The table annexed shows the nature of these casualties and the divisions in which they occurred:

	Foundering.	Strandings.	Collisions.	Other causes.	Total.	Totally lost.	Partially lost.	Lives lost on vessels damaged.	Lives lost on vessels not damaged.	Total number of lives lost.
Atlantic and Gulf coasts.....	4	13	11	10	38	10	28	5	3	8
Pacific coast		2		5	7		7			
Great lakes		5	6	6	17	3	14		3	3
Rivers	1	2	4	14	21	3	18	1	6	7
At sea or in foreign waters.....	2	4	8	45	54	14	40	26	11	37
Total	7	26	24	80	137	30	107	32	23	55

Of the lives lost, reported above, twenty were lost from small boats of the steamship Jeannette while on a voyage of exploration in the Arctic seas ; five were lost on the yacht Sophia, which foundered off Bridgeport, Connecticut ; two were lost on the schooner L. B. Wing, of Mobile, Alabama, which foundered while on passage from Matanzas, Cuba, to New York ; four are supposed to have been lost on the schooner Caroline C. Smith, of Fall River, Massachusetts, which sailed from Alexandria, Virginia, and has never been heard from ; three were lost by vessels in collision ; sixteen fell overboard ; one walked overboard while asleep ; one was knocked overboard by main boom ; one was killed by being jammed between boat and elevator while landing ; one was killed by engine starting while in crank room, and one was lost on a burning vessel.

As the foregoing could not properly be included in the report for the

fiscal year just closed, the General Summary Table of the previous year, amended so as to include the particulars furnished by the wreck reports mentioned above, is reprinted. The table will be convenient for comparison with the corresponding table in the statements of the present and other years.

Summary of disasters to vessels which occurred on and near the coasts and on the rivers of the United States, and to American vessels at sea and on the coasts of foreign countries, during the fiscal year ending June 30, 1881.

Nature of casualties.	Number of vessels.	Aggregate tonnage.	Wrecks involving total loss.	Casualties involving partial damage.	Number of lives lost.
Foundering:					
Atlantic and Gulf coasts	40	4,287	30	10	25
Pacific coast	1	17		1	1
Great lakes	21	5,014	13	8	76
Rivers	12	1,061	6	9	
At sea or in foreign waters	25	10,053	25		98
Total.....	99	20,432			200
Strandings:					
Atlantic and Gulf coasts	207	57,808			41
Pacific coast	37	10,168			2
Great lakes	127	42,844			6
Rivers	21	5,760			
At sea or in foreign waters	54	31,120			11
Total.....	506	147,697			60
Vessels collided:					
Atlantic and Gulf coasts	350	115,718	18	332	17
Pacific coast	20	17,590		20	
Great lakes	222	88,591	7	315	18
Rivers	67	28,108	6	61	4
At sea or in foreign waters	37	14,130	2	35	9
Total.....			3	663	48
Other causes:					
Atlantic and Gulf coasts	179	43,930	31	148	17
Pacific coast	23	7,151	1	22	2
Great lakes	192	61,753	12	180	28
Rivers	159	53,838	46	113	49
At sea or in foreign waters	312	125,114	62	250	233
Total.....	865	291,286	152	713	329
Grand total	2,166	716,537	465	1,701	637

RECAPITULATION.

Atlantic and Gulf coasts	836	221,741	190	646	100
Pacific coast	61	34,923	22	59	5
Great lakes	502	198,202	66	496	128
Rivers	259	86,263	62	197	53
At sea or in foreign waters	428	180,428	125	303	351
Total.....	2,166	716,537	465	1,701	637

Fiscal year ending June 30, 1881.

	Amount of losses.														
	\$500 to \$1,000.	\$1,000 to \$2,000.	\$2,000 to \$5,000.	\$5,000 to \$10,000.	\$10,000 to \$20,000.	\$20,000 to \$30,000.	\$30,000 to \$40,000.	\$40,000 to \$50,000.	\$50,000 to \$75,000.	\$75,000 to \$100,000.	\$100,000 to \$200,000.	\$200,000 to \$300,000.	\$300,000 and over.	Unknown.	Total.
Atlantic and Gulf coasts	91	106	77	37	23	12	6	5	2	3	3	1	1	62	429
Pacific coast	15	9	8	9	6	1	1	.....	1	.....	.....	.....	1	3	54
Great lakes	71	56	60	26	17	8	7	2	3	.....	.....	.....	.....	40	290
Rivers	24	29	44	20	13	6	3	4	7	3	.....	1	.....	10	164
At sea or in foreign waters	50	40	51	49	41	13	11	8	6	6	3	2	.....	12	292
Total	251	240	240	141	100	40	28	19	19	12	6	4	2	127	1,229

Fiscal year ending June 30, 1882.

	Amount of losses.														
	\$500 to \$1,000.	\$1,000 to \$2,000.	\$2,000 to \$5,000.	\$5,000 to \$10,000.	\$10,000 to \$20,000.	\$20,000 to \$30,000.	\$30,000 to \$40,000.	\$40,000 to \$50,000.	\$50,000 to \$75,000.	\$75,000 to \$100,000.	\$100,000 to \$200,000.	\$200,000 to \$300,000.	\$300,000 and over.	Unknown.	Total.
Atlantic and Gulf coasts	120	101	107	39	36	16	7	1	1	1	1	....	1	60	500
Pacific coast	8	8	12	4	10	2	....	1	3	2	....	....	....	7	55
Great lakes	74	58	46	23	12	5	2	3	2	....	1	....	....	36	262
Rivers	28	17	34	14	15	3	6	3	5	2	1	....	....	10	138
At sea or in foreign waters	44	30	56	45	33	21	....	4	10	5	7	1	....	12	268
Total	272	214	255	125	106	47	15	12	21	10	10	1	1	134	1,223

The subjoined tables show, by localities, the total number of vessels meeting with casualties, the total value of such vessels and their cargoes, the total losses to both and the total tonnage involved, and the tonnage of vessels totally lost during the fiscal years 1880-'81 and 1881-'82, with the percentage of increase or decrease of the latter compared with the former:

Total number of vessels involved.

	1880-'81.	1881-'82.	Per cent.
Atlantic.....	798	937	Increase of 17.42 per cent.
Pacific	74	93	Increase of 25.68 per cent.
Great lakes	545	506	Decrease of 7.16 per cent.
Rivers	238	236	Decrease of .84 per cent.
At sea or in foreign waters.....	374	323	Decrease of 13.64 per cent.
Aggregate	2,029	2,095	Increase of 3.25 per cent.

Total value of vessels and cargoes involved.

	1880-'81.	1881-'82.	Per cent.
Atlantic.....	\$18, 425, 550	\$19, 131, 890	Increase of 3.83 per cent.
Pacific	3, 032, 165	2, 807, 725	Decrease of 7.40 per cent.
Great lakes	11, 053, 330	12, 145, 775	Increase of 9.88 per cent.
Rivers	6, 862, 410	6, 273, 283	Decrease of 8.58 per cent.
At sea or in foreign waters.....	13, 238, 630	13, 253, 755	Increase of .11 per cent.
Aggregate	\$52, 612, 0-5	\$53, 612, 430	Increase of 1.90 per cent.

Total loss to vessels and cargoes.

	1880-'81.	1881-'82.	Per cent.
Atlantic.....	\$3, 317, 460	\$2, 730, 175	Decrease of 17.70 per cent.
Pacific	624, 780	690, 775	Increase of 10.56 per cent.
Great lakes	1, 425, 734	1, 128, 363	Decrease of 20.86 per cent.
Rivers	1, 852, 640	1, 471, 830	Decrease of 20.55 per cent.
At sea or in foreign waters.....	3, 885, 512	4, 253, 290	Increase of 9.47 per cent.
Aggregate	\$11, 106, 126	\$10, 274, 433	Decrease of 7.49 per cent.

Total tonnage of vessels involved.

	1880-'81.	1881-'82.	Per cent.
Atlantic.....	209, 518	225, 254	Increase of 7.51 per cent.
Pacific	32, 873	38, 592	Increase of 17.40 per cent.
Great lakes	182, 250	187, 011	Increase of 2.61 per cent.
Rivers	81, 784	119, 753	Increase of 46.43 per cent.
At sea or in foreign waters.....	171, 861	156, 484	Decrease of 8.95 per cent.
Aggregate	678, 286	727, 094	Increase of 7.20 per cent.

Total tonnage of vessels totally lost.

	1880-'81.	1881-'82.	Per cent.
Atlantic.....	36, 263	32, 776	Decrease of 9.62 per cent.
Pacific	5, 420	7, 692	Increase of 41.92 per cent.
Great lakes	15, 697	9, 524	Decrease of 39.83 per cent.
Rivers	17, 630	14, 931	Decrease of 15.31 per cent.
At sea or in foreign waters.....	50, 575	45, 744	Decrease of 9.55 per cent.
Aggregate	125, 585	110, 667	Decrease of 11.88 per cent.

On the 30th of June, 1882, the total number of registered, enrolled, and licensed vessels belonging to the United States were 24,368, with a total tonnage of 4,165,933; of this number 2,003 vessels, having a total tonnage of 775,295, met with casualties during the year, being 8.22 per cent. of the total number.

The following exhibit shows the number of steam and sailing vessels, canal-boats, and barges registered, enrolled, and licensed belonging to the United States on June 30, 1882, the number of each class which have met with disasters during the year, and the ratio of casualties to the number of vessels:

Comparative table—Casualties to vessels.

Classification.	Number of vessels belonging to the United States.	Number of casualties to vessels.	Ratio of casualties to number of vessels.
Steam vessels	5,191	534	As 1 to 9.72
Sailing vessels	16,819	1,418	As 1 to 11.86
Canal-boats	1,138	4	As 1 to 284.50
Barges	1,220	47	As 1 to 25.96
Total	24,368	2,003	As 1 to 12.17

During the year 767 vessels were reported as having met with collisions, but as two vessels were engaged in each collision (though in a few instances three or more collided with each other in gales, &c.), the actual number of casualties of this nature were a little less than one-half that number.

Eighty-two foreign vessels, having an aggregate tonnage of 32,177, met with disasters in American waters during the year. The nationalities of these vessels are given in certain of the accompanying tables.

In addition to the lives lost in the disasters to vessels which are embraced in the tables, 209 persons perished, by drowning or by accident on board, out of crews employed on 191 different vessels. In these cases neither vessels nor cargoes suffered damage, the persons drowned having been lost overboard or having perished by the capsizing of small boats in which they had left their vessels to attend fishing trawls or for other purposes. In some instances lives were lost by falling to the deck from aloft and by being struck by spars, tackling, &c., falling or swinging, owing to the giving way of rigging. These vessels are not included in any of the tables, except 63 and 64.

The following exhibit shows the number of persons on board vessels suffering casualties, the number of lives lost, the ratio of those lost to the number on board, and the ratio of lives lost to the number of casualties for the last seven fiscal years:

Fiscal years.	Number of casualties.	Number of persons on board.	Number of lives lost.	Ratio of lives lost to number on board.	Ratio of lives lost to number of casualties.
1875-'76	2,173	23,602	*885	As 1 to 26.67	As 1 to 2.45
1876-'77	2,062	28,139	*817	As 1 to 34.44	As 1 to 2.52
1877-'78	1,942	25,133	*598	As 1 to 42.03	As 1 to 3.25
1878-'79	2,942	27,811	*743	As 1 to 37.43	As 1 to 2.82
1879-'80	2,318	33,339	*417	As 1 to 79.95	As 1 to 5.56
1880-'81	2,029	30,475	*605	As 1 to 50.37	As 1 to 3.35
1881-'82	2,093	33,921	*494	As 1 to 68.67	As 1 to 4.24

* This number is exclusive of lives lost where vessels suffered no damage.

The above statement shows a general decrease in the number of lives lost in proportion to the number of persons on board vessels suffering casualty, and a similar decrease in the number of lives lost in proportion to the number of disasters. The decrease has been from 1 out of every 26.67 persons to 1 out of every 68.67 persons, and from 1 out of every 2.45 vessels to 1 out of every 4.24 vessels; a reduction of 61.16 per cent. in the one case and 42.22 per cent. in the other.

A still more remarkable exhibit is found in the following table, which is the same as the one above, except that it is confined to our own domain, the disasters occurring at sea and in foreign waters being excluded:

Fiscal years.	Number of casualties.	Number of persons on board.	Number of lives lost.	Ratio of lives lost to number on board.	Ratio of lives lost to number of casualties.
1875-'76.....	1,808	19,255	*650	As 1 to 29.62	As 1 to 2.78
1876-'77.....	1,525	21,688	*315	As 1 to 68.85	As 1 to 4.84
1877-'78.....	1,531	20,327	*399	As 1 to 50.94	As 1 to 3.83
1878-'79.....	1,571	21,898	*237	As 1 to 92.40	As 1 to 6.63
1879-'80.....	1,883	28,128	*187	As 1 to 150.42	As 1 to 10.07
1880-'81.....	1,655	25,881	*280	As 1 to 92.43	As 1 to 5.91
1881-'82.....	1,772	28,621	*232	As 1 to 113.58	As 1 to 7.03

* This number is exclusive of lives lost where vessels suffered no damage.

Thus it appears that upon the coasts and rivers of the United States the loss of life has descended, since the fiscal year ending June 30, 1876, from 1 out of every 29.62 persons on board vessels suffering disaster to 1 out of every 113.58 persons, and from 1 out of every 2.78 such vessels to 1 out of every 7.03, a reduction of 73.92 per cent. in the one case and 60.55 per cent. in the other.

It will be seen that the regular diminution in the ratios from year to year is twice interrupted; first, in the fiscal year 1877-'78, and again in 1880-'81. In the first instance the interruption is owing to the exceptionally calamitous disasters to the steamers Huron and Metropolis, on the North Carolina coast, in which one hundred and eighty-three persons perished. It is shown in another part of this report that in one case the Life-Saving Service was inoperant, and in the other crippled, from causes explained. In the second instance, the increase is chiefly due to the wreck of the steamer Alpena, in a terrific storm in the middle of Lake Michigan, on October 16, 1880, by which sixty lives were lost. It will be seen, upon examination of the above tables, that the reduction in the loss of life has been wholly in the United States, and this must be due entirely to the life-saving effort, inasmuch as there has been no material reduction in the number of casualties or in the number of persons exposed to peril.

TABLES.

ATLANTIC AND GULF COASTS.

TABLE 1.—Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, showing the NUMBER and VALUE of VESSELS and CARGOES and amount of LOSS to same where known.

Months.	Total value of ves- sels.		Number of vessels, value unknown.	Total value of car- goes.		Number of cargoes, value unknown.	Unknown whether laden or not.	Loss to vessels.		Number of vessels dam- aged, amount unknown.*	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged, or damage un- known.
	Number.	Amount.		Number.	Amount.			Number.	Amount.		Number.	Amount.		
July.....	38	\$1,140,600	3	23	\$498,135	...	4	36	\$28,400	5	9	\$7,520	...	18
August.....	87	1,649,610	10	45	147,730	1	10	81	206,400	16	17	17,480	...	39
September	79	1,007,800	4	52	210,645	3	4	74	111,405	9	23	19,920	...	36
October	108	1,373,585	6	78	262,795	3	5	102	202,310	12	37	45,980	1	48
November.....	80	1,302,325	7	55	401,415	1	7	82	168,515	14	29	59,080	...	34
December.....	79	2,064,850	7	62	553,290	5	7	76	181,195	10	26	139,745	1	47
January.....	93	1,342,500	8	68	572,155	1	9	85	207,095	16	31	75,730	...	47
February.....	71	653,850	2	46	243,580	...	2	63	139,630	10	23	31,225	...	25
March.....	77	1,088,425	2	52	566,685	2	3	72	204,815	7	22	57,335	...	35
April.....	57	773,350	6	43	368,085	1	6	54	237,320	9	18	35,220	...	32
May.....	44	602,100	2	24	351,605	2	3	39	227,030	7	7	270,645	...	22
June.....	49	1,427,750	9	32	527,025	2	10	44	52,805	14	10	3,385	...	34
Total.....	871	\$14,428,745	66	580	\$4,703,145	21	70	808	\$1,986,920	129	252	\$768,255	2	417

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in table 2.

TABLE 2.—Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, showing the number of VESSELS TOTALLY LOST, the number DAMAGED, aggregate TONNAGE of vessels totally lost, number of PASSENGERS and CREW, and number of LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss up- known.	Number of casual- ties resulting in no damage to vessels.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July.....	4	32	3	2	41	265	474	828	.....
August.....	23	58	6	10	97	2,356	754	2,969	5
September.....	13	61	4	5	83	2,301	578	256	1
October.....	23	79	5	7	114	4,843	1,075	334	12
November.....	18	64	7	7	96	2,788	672	92	7
December.....	23	53	6	4	86	3,186	1,342	258	4
January.....	21	64	9	7	101	5,764	794	404	14
February.....	15	48	2	8	73	2,616	443	73	5
March.....	16	56	4	3	79	3,863	645	262	4
April.....	7	47	7	2	63	3,180	466	91	5
May.....	5	34	3	4	46	1,214	312	152	.....
June.....	7	87	10	4	58	400	525	1,116	2
Total.....	175	633	66	63	937	32,776	8,080	6,835	59

TABLE 3.—Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, showing the number of VESSELS and CARGOES INSURED and UNINSURED, and the AMOUNT of INSURANCE, where kn

Months.	Number of vessels and cargoes reported to be insured, and the amount of insurance.					Number of vessels and cargoes reported not insured.		Number of vessels and cargoes, whether insured or not, unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	Number.	Amount.	Number.	Amount.						
July	10	\$149,420	8	\$30,690	\$180,110	26	10	5	9	14
August	16	110,950	13	30,355	141,305	71	25	10	18	41
September	20	148,225	17	61,590	209,815	57	27	6	15	24
October	26	104,645	27	96,290	200,935	76	33	12	26	28
November	27	367,400	17	39,350	406,750	59	23	10	23	33
December	35	424,250	20	118,790	543,040	40	27	11	27	12
January	35	250,200	24	309,330	559,530	48	29	18	25	23
February	29	141,450	20	124,780	266,230	40	17	4	11	25
March	20	216,700	22	360,495	577,195	51	22	8	13	22
April	17	299,100	13	103,650	402,750	37	15	9	22	13
May	14	119,600	8	36,200	155,800	28	10	4	11	17
June	12	442,000	7	258,300	700,300	37	16	9	21	14
Total	261	\$2,773,940	196	\$1,569,820	\$4,343,760	570	254	106	221	266

TABLE 4.—*Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, distinguishing the NATURE of each casualty.*

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered		7	7	5	1	10	....	3	3	2	1	1	40
Stranded	15	81	26	39	28	23	34	30	21	21	13	7	288
Collided	18	47	40	38	41	34	48	25	36	24	24	86	409
Capsized	1	1	....	2	2	1	2	....	4	1	1	....	15
Damage to hull, masts, rigging, &c	1	5	3	24	10	7	8	8	9	6	5	5	91
Damage to machinery .....	....	3	3	....	4	3	2	....	....	2	....	2	19
Fire .....	....	....	2	....	3	3	1	1	4	4	1	2	21
Ice .....	....	....	....	....	....	....	1	1	....	....	....	....	2
Sprung a leak	2	....	1	5	2	1	4	1	2	1	1	1	21
Struck by lightning	2	1	....	....	....	....	....	....	....	....	....	1	4
Struck wharf, bridge, sunken wreck, &c	2	2	1	1	4	3	1	2	....	2	....	2	20
Waterlogged .....	....	....	....	1	1	1	....	....	....	....	....	1	4
Miscellaneous .....	....	....	....	1	....	....	....	2	....	....	....	....	3
Total	41	97	83	114	96	86	101	73	79	63	46	58	937

TABLE 5.—*Abstract of returns of disasters (excluding collisions) to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, distinguishing the CAUSE of each disaster.*

Class and cause of disaster.	Foundering.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—Causes connected with the weather:					
Calms, currents, and tides .....	....	35	4	....	39
Darkness .....	....	4	3	....	7
Fog, &c .....	....	83	....	....	83
Gales, hurricanes, &c	26	102	97	....	225
Heavy sea, &c	3	10	15	....	28
Lightning .....	....	....	4	....	4
Total of class 1	29	184	123	....	336
CLASS 2.—Causes connected with vessels, equipments, or stowage:					
Defective hull, masts, rigging, &c .....	....	6	9	....	15
Error in chronometer .....	....	1	....	....	1
Error in compass .....	....	7	....	....	7
Total of class 2 .....	....	14	9	....	23
CLASS 3.—Causes connected with navigation and seamanship:					
Errors of masters, officers, or crew	1	45	1	....	47
Errors of pilots .....	....	4	....	....	4
Total of class 3	1	49	1	....	51
CLASS 4.—Causes connected with machinery or boilers:					
Damage to machinery .....	....	1	18	....	19
Total of class 4 .....	....	1	18	....	19
CLASS 5.—Other causes:					
Absence of light or buoys .....	....	4	....	....	4
Fire .....	....	....	16	....	16
Ice .....	....	....	3	....	3
Incendiarism .....	....	....	1	....	1
Spontaneous combustion .....	....	....	1	....	1
Sprung a leak	7	18	11	....	36
Struck rock, wreck, bridge, &c .....	....	8	16	....	24
Miscellaneous .....	....	6	1	....	7
Unknown	3	4	....	....	7
Total of class 5	10	40	49	....	99
Aggregate	40	288	200	....	528

TABLE 6.—*Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, showing the number of vessels COLLIDED, and distinguishing the CAUSE of each disaster.*

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Accidental.....				1	5	1	2		4	1	2	2	18
Bad management.....					1				1	1			3
Carelessness.....			2	1		1			1		1		6
Darkness.....			6	1	2	2	9	1	1				23
Errors of pilots.....							2						2
"Fault of other vessel".....	5	16	11	20	11	13	17	10	9	10	12	14	148
Fault of tug-towing.....	2				1		1		1				5
Fog.....	2		3	2	6	4		2	6			4	29
High, baffling winds.....		1							2				3
Misunderstanding signals.....	2				2		1	2		1			8
Misstayed.....									1		1		2
Negligence.....	2	1									2	1	6
Stress of weather.....	2	19	2	2	1		5	6	2	2	1		42
Tides, currents, &c.....	3	1				3			1				8
Want of proper lights.....		4	5	2	2	2			1			2	18
Miscellaneous.....						1	1		1				3
Unknown.....		5	11	7	10	7	10	4	5	9	5	13	86
Total.....	18	47	40	36	41	34	48	25	36	24	24	36	409

TABLE 7.—*Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, showing the number of vessels and distinguishing their DESCRIPTION.*

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barges.....	1		1	1	4	1	2				1	1	12
Barks.....		4	4	2	3	1	7	2	5	1		3	32
Barkentines.....					1	1			2				4
Brigs.....	1	1	3	6	6	3	5	1	2		1		29
Brigantines.....					1								1
Dredges.....				1					1				2
Ferry-boats.....					1						1		2
Schooners.....	23	53	50	82	53	50	63	49	47	41	28	29	568
Scows.....			1			9		2					12
Ships.....	1			1			1		1				4
Sloops.....	3	4	6	4	5	1	2	6	5	4	3	4	47
Steamers.....	10	28	15	13	17	15	18	11	11	11	9	17	175
Steamships.....	1	1				3	1		2	3	1	1	13
Yachts.....				2					1				3
Unknown.....	1	6	3	2	5	2	2	2	2	3	2	3	33
Total.....	41	97	83	114	96	86	101	73	79	63	46	58	937

TABLE 8.—Abstract of returns of disasters to foreign vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, showing nationality and description, and distinguishing those TOTALLY LOST and those PARTIALLY DAMAGED.

Nationality and rig.	July.		August.		Septem-ber.		Octo-ber.		Novem-ber.		Decem-ber.		Jann-ary.		Febru-ary.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Austrian brigs																										1	1
British barks																										3	6
British brigs		2																								2	4
British brigantines																										1	1
British schooners																										1	1
British steamers																										13	18
British steamships																										1	1
French brig																										2	3
German bark																										1	1
German ship																										1	1
Haytien brig																										1	1
Italian brig																										2	2
Norwegian bark																										1	1
Russian bark																										4	4
San Dominican brig																										1	1
Spanish bark																										1	1
Spanish steamship																										1	1
Unknown																										1	1
Total		5	1		2	1	3	3	3	2	3	2	4	5	2	2	1	3	1	4	2	1	1	4	20	30	50
Aggregate		5	1		3		6		5		5		9		4		4		5		3		5		50		

UNITED STATES LIFE-SAVING SERVICE.

TABLE 2.—Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1892, showing the TONNAGE and distinguishing the number of those TOTALLY LOST and those PARTIALLY DAMAGED.

	July.		August.		Septem-ber.		Octo-ber.		Novem-ber.		Decem-ber.		Janu-ary.		Febru-ary.		March.		April.		May.		June.		Total.		
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Aggregate.
Not exceeding 50 tons.....	13	16	12	16	5	21	6	15	4	13	7	4	17	5	16	5	21	1	14	2	6	4	10	63	174	227	
Over 50 and not exceeding 100 tons.....	3	3	3	19	3	11	4	25	4	13	8	4	14	2	11	1	10	2	8	13	1	1	14	35	156	191	
Over 100 and not exceeding 200 tons.....	1	3	3	3	2	13	4	23	5	13	6	12	11	5	5	3	8	2	12	1	8	2	6	40	125	165	
Over 200 and not exceeding 300 tons.....	2	3	3	3	1	9	9	7	3	7	5	1	7	1	4	1	6	1	7	5	5	2	2	15	57	63	
Over 300 and not exceeding 400 tons.....	1	1	2	1	1	4	1	2	2	4	3	1	10	1	9	2	3	6	6	1	3	2	2	12	48	60	
Over 400 and not exceeding 500 tons.....	1	1	1	1	2	1	4	4	5	5	1	3	8	1	8	1	2	2	1	3	1	3	7	4	45	49	
Over 500 and not exceeding 600 tons.....	1	1	1	1	2	1	4	4	1	1	3	1	3	1	2	1	1	1	1	1	1	1	1	3	19	22	
Over 600 and not exceeding 700 tons.....	1	1	1	1	1	1	1	1	1	4	2	1	2	1	1	1	4	1	1	1	1	1	1	3	15	18	
Over 700 and not exceeding 800 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	8	10	
Over 800 and not exceeding 900 tons.....	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	2	2	11	13	
Over 900 and not exceeding 1,000 tons.....	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	6	6	
Over 1,000 and not exceeding 1,100 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Over 1,100 and not exceeding 1,200 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	
Over 1,200 and not exceeding 1,300 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Over 1,300 and not exceeding 1,400 tons.....	3	5	5	5	1	1	2	2	3	3	4	4	2	2	2	1	2	1	1	1	1	3	3	3	28	28	
Over 1,400 tons.....	3	9	9	9	3	3	4	4	6	6	4	4	4	4	2	1	3	5	5	2	2	4	4	1	49	50	
Unknown.....																											
Total.....	4	37	23	74	13	79	23	81	16	78	23	63	21	89	15	58	16	63	7	56	5	41	7	51	175	762	837
Aggregate.....	41	97	83	114	95	84	101	73	79	63	46	58	58	937													

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessels sustained no damage, for the number of which see appropriate column in Table 2.

TABLE 10.—Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, showing the number of vessels and distinguishing AGE.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years	3	18	8	9	12	13	14	■	10	5	11	7	118
Over 3 and not exceeding 7 years	5	13	13	16	8	15	14	8	8	5	7	6	118
Over 7 and not exceeding 10 years	4	13	10	10	13	10	19	17	■	9	6	7	134
Over 10 and not exceeding 14 years	5	9	5	15	13	8	12	12	8	15	5	7	114
Over 14 and not exceeding 20 years	3	12	21	23	16	17	18	12	3	12	7	11	163
Over 20 and not exceeding 25 years	6	6	6	8	5	3	4	6	7	4	2	1	58
Over 25 and not exceeding 30 years	3	10	3	9	8	3	8	4	6	2	3	1	60
Over 30 and not exceeding 35 years	..	6	1	7	5	6	1	2	2	8	..	4	37
Over 35 and not exceeding 40 years	..	..	1	4	1	..	2	..	2	..	2	4	16
Over 40 and not exceeding 45 years	1	2	1	3	3	..	..	..	..	..	..	2	11
Over 45 and not exceeding 50 years	..	..	2	..	1	..	..	1	..	..	..	..	4
Over 50 years	..	..	1	2	1	..	..	..	1	..	..	..	5
Unknown	6	13	11	8	11	6	9	■	11	8	3	8	97
Total	41	9	..	..	..	..	..	..	9	63	46	58	937

TABLE 11.—Abstract of returns of disasters to vessels on the ATLANTIC and GULF coasts during the year ending June 30, 1882, showing the number of vessels and distinguishing their CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Asphaltum	..	..	..	..	..	..	1	..	..	..	..	..	1
Ballast	14	41	24	28	33	12	23	25	22	13	17	14	266
Coal	3	11	15	28	9	19	16	12	4	7	6	2	132
Cotton and cotton-seed	..	..	..	1	..	3	..	1	1	1	..	..	7
Fertilizers	..	1	1	2	..	3	2	2	4	1	1	3	20
Fish, oysters, &c	1	2	5	5	6	4	13	7	3	2	2	5	60
Fruit, coffee, &c	1	..	..	1	..	1	..	..	..	..	..	..	3
Grain	..	1	2	1	2	1	2	1	2	..	..	1	13
Hides, &c	..	..	..	..	1	..	..	1	..	..	..	..	2
Ice	1	..	3	4	1	..	1	5	2	1	..	1	19
Iron, iron ore, &c	..	3	3	5	1	1	3	..	1	..	2	..	19
Lime, cement, &c	..	1	1	..	1	..	..	..	2	4	..	1	10
Live stock, &c	1	1	..	..	..	..	..	..	..	..	..	..	2
Logwood	..	1	..	..	..	1	2	1	..	..	..	..	5
Lumber	3	11	5	17	8	6	10	7	8	11	4	6	96
Merchandise (general)	6	9	5	5	4	5	5	3	5	3	3	3	56
Naval stores	..	1	..	..	..	..	..	..	..	..	..	..	1
Petroleum	..	..	..	..	..	..	1	..	1	..	..	..	2
Provisions, &c	3	1	1	1	3	1	1	1	1	1	..	2	16
Railroad iron, &c	..	..	1	1	..	..	2	1	2	1	..	..	8
Salt	..	..	..	1	1	..	..	..	2	..	..	2	6
Sand, plaster, &c	..	1	4	4	2	4	1	..	1	..	1	..	18
Stone, brick, &c	3	1	2	3	5	1	1	..	1	4	1	1	23
Sugar, molasses, &c	..	..	..	..	1	..	1	1	3	1	1	1	9
Tar, turpentine, &c	..	..	2	..	..	..	..	1	..	..	..	..	3
Wood	1	..	2	1	4	2	1	..	3	2	2	2	20
Miscellaneous	..	1	3	1	7	15	6	2	3	5	3	4	60
Unknown	4	10	4	5	7	7	9	2	3	6	3	10	70
Total	41	97	83	114	■	86	101	73	79	63	46	58	937

TABLE 12.—*Summary*—ATLANTIC and GULF coasts.

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number of crew.	Total on board.	Total number of lives lost.
Founderingings	40	2,965	28	12	.....	28	12	11	114	125	18
Strandings	286	62,453	217	70	1	115	173	359	2,103	2,462	27
Vessels collided	409	111,174	208	132	69	18	391	4,650	4,170	8,820	11
Other causes	200	48,662	148	52	.....	14	186	1,815	1,698	3,508	8
Total	937	225,254	601	268	70	175	762	6,835	8,080	14,915	59

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 2.

PACIFIC COAST.

TABLE 13.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1882, showing the NUMBER and VALUE of VESSELS and CARGOES and amount of LOSS to same where known.

Months.	Total value of vessels.		Total value of cargoes.		Number of cargoes, value unknown.	Unknown whether laden or not.	Loss to vessels.		Number of vessels damaged, amount unknown.*	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged, or damage unknown.
	Number.	Amount.	Number.	Amount.			Number.	Amount.		Number.	Amount.		
July.....	7	\$81,700	2	\$1,400	.....	.....	6	\$28,010	1	2	\$1,400	.....	.....
August.....	12	203,700	6	8,520	1	1	12	10,385	1	2	980	.....	5
September.....	8	274,800	6	205,400	.....	.....	2	20,800	.....	2	270	.....	4
October.....	9	290,000	5	17,750	1	1	9	205,930	1	4	5,330	.....	2
November.....	8	554,400	4	85,100	2	2	3	65,800	2	2	44,100	.....	4
December.....	5	79,000	4	18,600	1	1	3	28,800	1	.....	.....	.....	5
January.....	10	131,000	8	108,225	1	1	9	36,335	2	6	13,100	.....	3
February.....	4	44,500	3	47,000	.....	.....	4	32,200	.....	1	46,840	.....	2
March.....	11	627,350	5	11,100	1	1	11	73,435	1	4	2,000	.....	3
April.....	1	75,000	1	3,500	.....	.....	1	7,000	.....	1	3,500	.....	1
May.....	3	9,000	1	2,000	.....	.....	3	16,500	.....	.....	.....	.....	1
June.....	8	77,350	6	30,630	.....	.....	7	33,400	1	5	14,680	.....	1
Total.....	86	\$2,467,600	51	\$340,125	7	7	83	\$558,595	10	29	\$132,180	.....	30

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 14.

TABLE 14.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1882, showing the number of VESSELS TOTALLY LOST, the number DAMAGED, aggregate TONNAGE of vessels totally lost, number of PASSENGERS and CREW, and number of LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss known.	Number of casualties resulting in no damage to vessels.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July	3	3	.....	1	7	387	58	.....	.....
August	1	11	1	.....	13	96	85	250	.....
September	1	7	.....	.....	8	299	121	3	.....
October	5	4	1	.....	10	2,530	103	34	.....
November	2	6	2	.....	10	816	99	102	.....
December	1	4	1	.....	6	992	59	56	.....
January	4	3	1	1	11	1,335	92	.....	.....
February	1	3	.....	.....	4	778	29	2	.....
March	3	6	1	.....	12	131	171	133	.....
April .....	.....	1	.....	.....	1	.....	19	.....	2
May	1	2	.....	.....	3	263	44	.....	.....
June	2	5	.....	1	8	65	67	.....	.....
Total	24	59	7	3	93	7,692	947	580	2

TABLE 15.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1882, showing the number of VESSELS and CARGOES INSURED and UNINSURED, and the AMOUNT of INSURANCE, where known.

Months.	Number of vessels and cargoes reported to be insured, and the amount of insurance.					Number of vessels and cargoes reported not insured.		Number of vessels and cargoes, whether insured or not, unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	Number.	Amount.	Number.	Amount.						
July	4	\$31,800	.....	.....	\$31,800	3	2	.....	.....	5
August	6	82,300	1	\$3,000	85,300	6	5	1	1	6
September	2	25,000	1	59,560	84,560	5	4	1	1	2
October	5	50,000	.....	.....	50,000	1	3	4	3	4
November	2	70,000	1	44,000	114,000	6	3	2	2	4
December	2	13,500	.....	.....	13,500	3	4	1	1	1
January	7	93,500	3	9,200	102,700	2	4	2	2	2
February	1	3,000	.....	.....	3,000	2	2	1	1	1
March	7	502,000	.....	.....	502,000	4	5	1	2	5
April	1	5,000	1	3,000	8,000	.....	.....	.....	.....	.....
May	2	9,000	.....	.....	9,000	1	1	.....	.....	2
June	1	40,000	1	18,000	58,000	7	5	.....	.....	2
Total	40	\$925,100	8	\$136,760	\$1,061,860	40	38	13	13	34

TABLE 16.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1882, distinguishing the NATURE of each casualty.

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	1							1	1			2	5
Stranded		2	1	6	1	1	4	2	4	1		2	23
Collided	2	10	6	2	6	2	4		6				40
Damage to hull, masts, rigging, &c	3					1					2		4
Damage to machinery			1	1	1								3
Fire					1		1					3	5
Ice	1										1		2
Sprung a leak		1											1
Struck by lightning									1				1
Struck wharf, bridge, sunken wreck, &c					1	2	1	1					5
Waterlogged				1									1
Miscellaneous							1						1
Total	7	13	8	10	10	6	11	4	12	1	3	8	93

TABLE 17.—Abstract of returns of disasters (excluding collisions) to vessels on the PACIFIC coast during the year ending June 30, 1882, distinguishing the CAUSE of each disaster.

Class and cause of disaster	Foundering.	Stranding.	Other causes.	Missing vessels.	Total.
CLASS 1.—Causes connected with the weather:					
Calms, currents, and tides			2	1	3
Fog &c					3
Gales, hurricanes, &c			5		12
Heavy sea, &c			3		7
Lightning			1		1
Total of Class 1			1		28
CLASS 2.—Causes connected with vessels, equipments, or					
Defective hull, masts, rigging, &c		1			1
Total of Class 2		1			1
CLASS 3.—Causes connected with navigation and seamanship:					
Errors of masters, officers, or crew		5	1		6
Errors of pilots		1			1
Total of Class 3		6	1		7
CLASS 4.—Causes connected with machinery or boilers:					
Damage to machinery			3		3
Total of Class 4			3		3
CLASS 5.—Other causes.					
Fire				5	5
Ice				2	2
Sprung a leak	3				3
Struck rock, wreck, bridge, &c		1	1		2
Unknown		2			2
Total of Class 5	3	3	8		14
Aggregate	5	25	23		53

TABLE 18.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1882, showing the number of vessels COLLIDED, and distinguishing the CAUSE of each disaster.

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Accidental		1							2				3
"Fault of other vessel"		5	2	1	2		1		2		1		14
Fault of tug towing	1				1								2
Fog			2			2							4
Heavy sea			1										1
High, baffling winds							2						2
Tides, currents, &c	1	2					1		1		1		6
Want of proper lights			1										1
Unknown		2		1	3				1				7
Total	2	10	6	2	6	2	4		6		2	1	40

TABLE 19.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1882, showing the NUMBER of vessels and distinguishing their DESCRIPTION.

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barks	1		1	2	1	1	3	1	1		1	2	14
Barkentines			1						1				2
Ferry-boats					2								2
Schooners	5	9	1	3	1	1	6	2	8	1	1	5	43
Scows					1	1							1
Ships			2	1	2	1	2					1	9
Steamers	1	3	2	4	3	3		1	1		1		19
Steamships		1	1						1				3
Total	7	13	8	10	10	6	11	4	12	1	3	8	93

TABLE 20.—*Abstract of returns of foreign vessels on the PACIFIC coast during the year ending June 30, 1882, showing NATIONALITY and DESCRIPTION, and distinguishing those TOTALLY LOST and those PARTIALLY DAMAGED.*

[illegible]

TABLE 21.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1882, showing the TONNAGE and distinguishing the number of those TOTALLY LOST and those PARTIALLY DAMAGED.

Burden of vessels.	July.		August.		Septem-ber.		October.		Novem-ber.		Decem-ber.		Jann-ary.		Febru-ary.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons.....	2			5		1	2	1					1	2			3	1			1		3	3	9	16	25
Over 50 and not exceeding 100 tons.....		3	1	3			1		1				1					2			1				4	14	18
Over 100 and not exceeding 200 tons.....		1		1					2		2		3					2	1	1						12	12
Over 200 and not exceeding 300 tons.....																										5	5
Over 300 and not exceeding 400 tons.....	1				1		1		1		1							1							2	3	3
Over 400 and not exceeding 500 tons.....											1														1	2	3
Over 500 and not exceeding 600 tons.....											1		1					1							1	1	2
Over 600 and not exceeding 700 tons.....			1										1												1	1	2
Over 700 and not exceeding 800 tons.....							1		1						1										2	1	3
Over 800 and not exceeding 900 tons.....								2																	3		3
Over 900 and not exceeding 1,000 tons.....			1						1		1												1		1	2	3
Over 1,000 and not exceeding 1,100 tons.....																											3
Over 1,100 and not exceeding 1,200 tons.....					2								1											1		3	3
Over 1,200 and not exceeding 1,300 tons.....					1			1																			3
Over 1,300 and not exceeding 1,400 tons.....																											6
Over 1,400 tons.....			1		1			1		1		1						1						1		6	6
Unknown.....							1						1													3	3
Total.....	3	4	1	12	1	7	5	5	2	8	1	5	4	7	1	3	3	9	1		1	1	2	2	24	60	93
Aggregate	7		13		8		10		10		6		11		4		12		1		3		8		93		

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessel sustained no damage, for the number of which see appropriate column in Table 14.

TABLE 22.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1892, showing the number of vessels and distinguishing AGE.

[illegible]

TABLE 23.—Abstract of returns of disasters to vessels on the PACIFIC coast during the year ending June 30, 1882, showing the number of vessels and distinguishing their CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast	5	6	2	4	4	1	2	1	5	...	2	2	24
Coal .....	...	1	2	2	...	...	2	...	1	...	...	2	7
Grain .....	...	1	2	...	1	1	1	1	1	...	1	...	7
Lumber .....	...	1	2	2	...	2	1	2	1	...	...	2	15
Merchandise (general) .....	...	2	...	...	...	...	2	...	3	...	...	1	8
Provisions, &c .....	...	...	...	1	1	...	...	...	...	1	...	...	3
Salt .....	...	...	...	...	...	...	1	...	1	...	...	...	2
Stone, brick, &c	1	1	...	...	...	...	...	...	...	...	...	...	2
Whale oil, &c	1	...	...	...	...	...	...	...	...	...	...	...	1
Miscellaneous .....	...	1	1	...	2	1	1	...	1	...	...	...	6
Unknown .....	...	1	...	1	2	1	1	...	1	...	...	...	7
Total	7	13	8	10	10	6	11	4	12	1	3	6	92

TABLE 24.—Summary—PACIFIC coast.

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number of crew.	Total on board.	Total number of lives lost.
Foundering.....	5	214	5	.....	.....	3	2	.....	16	16	.....
Strandings.....	25	10,346	20	5	.....	17	8	139	301	440	3
Vessels collided.....	40	21,548	15	18	7	1	39	394	333	727	.....
Other causes.....	23	6,484	12	11	.....	3	20	47	242	289	.....
Total.....	93	38,592	52	34	7	24	69	580	947	1,527	3

*In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 14.

TABLE 25.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ending June 30, 1882, showing the NUMBER and VALUE of VESSELS and CARGOES and amount of LOSS to same where known.

Months.	Total value of ves- sels.		Total value of car- goes.		Number of cargoes, value unknown.	Loss to vessels.		Unknown whether laden or not.	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged, or damage un- known.
	Number.	Amount.	Number.	Amount.		Number.	Amount.		Number.	Amount.		
July	50	\$1,237,450	30	\$231,880	1	40	\$74,485	8	13	\$1,430	4	34
August	32	923,400	17	199,070	1	28	16,810	4	5	36,860	4	18
September	71	1,427,755	53	475,375	...	65	160,380	2	7	75,550	26	29
October	48	965,450	39	275,700	...	43	36,905	5	8	23,330	11	33
November	105	1,989,800	86	644,165	5	96	345,948	2	12	88,645	41	52
December	6	58,900	5	114,940	...	0	34,300	...	...	9,200	3	2
January	3	105,800	...	...	...	3	775	...	...	...	...	...
February	6	249,000	2	42,000	...	6	11,700	...	...	12,000	1	1
March	20	277,300	6	25,100	...	17	38,020	1	4	1,200	5	2
April	46	601,750	26	217,780	...	41	46,885	3	8	7,835	12	17
May	59	1,176,320	35	278,695	...	49	53,890	6	12	3,650	7	34
June	41	514,700	21	113,445	1	36	46,135	5	8	2,430	6	21
Total	486	\$9,527,625	320	\$2,618,150	8	429	\$366,233	36	77	\$262,130	120	243

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 26.

TABLE 26.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ending June 30, 1882, showing the number of VESSELS TOTALLY LOST, the number DAMAGED, aggregate TONNAGE of vessels totally lost, the number of PASSENGERS and CREW, and number of LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss un-known.	Number of casualties resulting in no damage to vessels.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July	1	39	3	5	53	890	499	85	4
August	1	28	4	1	33	.....	270	80	2
September	9	56	3	4	72	2,411	640	44	26
October	1	42	6	2	51	162	424	28	.....
November	14	82	2	10	108	3,853	926	5	27
December	1	5	.....	.....	6	495	34	.....	.....
January .....	.....	3	.....	.....	3	.....	34	.....	.....
February .....	.....	5	.....	.....	5	.....	72	38	.....
March	4	13	2	2	21	597	93	.....	.....
April	4	37	4	4	49	694	385	18	4
May	1	48	6	6	61	246	495	113	7
June	2	34	5	3	44	176	319	46	3
Total	37	392	40	37	506	9,524	4,191	457	73

TABLE 27.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ending June 30, 1882, showing the number of VESSELS and CARGOES INSURED and UNINSURED, and the AMOUNT OF INSURANCE, where known.

Months.	Number of vessels and cargoes reported to be insured, and the amount of insurance.					Number of ves- sels and car- goes reported not insured.		Number of ves- sels and car- goes, whether insured or not, unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	Number.	Amount.	Number.	Amount.						
July	25	\$438,600	12	\$95,320	\$533,920	20	13	8	14	14
August	13	232,000	8	159,295	391,295	15	9	5	5	11
September	31	441,640	19	328,885	770,525	38	26	3	10	17
October	32	609,550	16	163,770	773,320	12	21	7	7	2
November	69	1,066,450	36	417,960	1,484,410	36	45	3	12	15
December			1	3,000	3,000	6	4			1
January	2	76,500			76,500	1				3
February	3	79,500	1	25,000	104,500	2	1			3
March	3	26,000			26,000	16	6	2	1	14
April	22	252,400	9	90,470	342,870	24	15	3	5	20
May	26	422,000	15	171,135	593,135	25	18	10	8	20
June	24	248,500	3	60,865	309,365	15	18	5	6	17
Total	250	3,893,140	120	1,515,700	5,408,840	210	176	46	68	142

TABLE 28.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ending June 30, 1882, distinguishing the NATURE of each casualty.

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	1	...	1	...	3	...	...	...	...	4	...	...	9
Stranded	6	7	25	8	37	3	...	...	6	16	14	8	130
Collided	29	18	21	26	18	...	...	...	8	14	26	20	180
Capsized .....	...	...	1	...	1	...	...	...	...	...	...	1	3
Damage to hull, masts, rigging, &c	7	2	9	6	26	2	...	1	...	6	9	2	70
Damage to machinery	4	2	8	2	...	...	...	...	...	2	4	5	22
Explosion of boilers .....	...	1	...	...	...	...	...	...	...	...	...	...	1
Fire	4	...	2	1	5	1	2	1	2	1	3	3	25
Ice .....	...	...	...	...	...	...	...	1	...	...	...	...	1
Sprung a leak	1	...	2	3	3	...	...	...	...	1	2	...	12
Struck bridge pier, sunken wreck, &c	1	3	5	8	7	...	1	2	2	2	2	2	30
Struck by lightning .....	...	...	...	1	...	...	...	...	...	...	...	...	1
Waterlogged .....	...	...	2	1	5	...	...	...	...	...	...	...	8
Miscellaneous .....	...	...	1	...	3	...	...	...	3	3	1	3	14
Total	53	33	72	51	108	6	3	5	21	49	61	44	506

TABLE 29.—Abstract of returns of disasters (excluding collisions) to vessels on the GREAT LAKES during the year ending June 30, 1882, distinguishing the CAUSE of each disaster.

Class and cause of disaster.	Foundering.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—Causes connected with the weather :					
Calms and currents .....	...	1	2	...	3
Darkness .....	...	5	1	...	6
Fog .....	...	21	1	...	22
Gales, hurricanes, &c	4	54	75	...	133
Heavy sea	1	9	22	...	32
Lightning .....	...	...	1	...	1
Total of Class 1	5	90	102	...	197
CLASS 2.—Causes connected with vessels, equipments, or stowage :					
Defective chart .....	...	1	...	...	1
Defective hull, masts, rigging, &c .....	...	4	2	...	6
Error in compass .....	...	1	...	...	1
Total of Class 2 .....	...	6	2	...	8
CLASS 3.—Causes connected with navigation and seamanship :					
Errors of masters, officers, or crew .....	...	13	6	...	19
Errors of pilots .....	...	2	...	...	2
Total of Class 3 .....	...	15	6	...	21
CLASS 4.—Causes connected with machinery or boilers :					
Damage to machinery .....	...	1	21	...	22
Explosion of boilers .....	...	...	1	...	1
Total of Class 4 .....	...	1	22	...	23
CLASS 5.—Other causes :					
Absence of light or buoys .....	...	5	5	...	10
Fire .....	...	...	26	...	26
Ice .....	...	...	1	...	1
Sprung a leak	3	5	7	...	15
Struck rock, bridge, wreck, &c .....	...	3	15	...	18
Miscellaneous .....	...	4	1	...	5
Unknown	1	1	...	...	2
Total of Class 5	4	18	55	...	77
Aggregate	9	130	187	...	326

TABLE 30.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ended June 30, 1882, showing the number of vessels COLLIDED, and distinguishing the CAUSE of each disaster.

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Accidental	2	1	1	2	2							1	9
Bad management	4	1	2		1				1		1	1	11
Darkness		1	2	9	1								13
"Fault of other vessel"	6	4	6	3	6				1	2	7	3	33
Fault of tug towing	4	1		3	1				2	3	2	2	18
Fog		1	3	1					1		2	2	10
High and baffling winds			3	2	3						9	1	18
Misunderstanding signals	1		1									2	4
Negligence		3			2				2	2		3	12
Stress of weather					1								1
Strong current		1											1
Want of proper lights	3												3
Miscellaneous	2			4	1						3		10
Unknown	7	5	3	2					1	7	2	5	32
Total	29	18	21	26	18				8	14	26	20	180

TABLE 31.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ended June 30, 1882, showing the number of vessels and distinguishing their DESCRIPTION.

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barges	2	3	2	2	3					1	2		15
Barks			1		3								4
Canal-boats	1								1				2
Schooners	28	14	42	34	79	6	1	1	13	29	40	25	312
Scows	1		2		1				2				6
Ships		1								2			3
Sloops										1			1
Steamers	21	15	24	12	22		2	4	5	14	18	17	154
Yachts			1							1		1	3
Unknown				3						1	1	1	6
Total	53	33	72	51	108	6	3	5	21	49	61	44	506

TABLE 32.—Abstract of returns of disasters to foreign vessels on the GREAT LAKES during the year ending June 30, 1882, showing NATIONALITY and DESCRIPTION, and distinguishing those TOTALLY LOST and those PARTIALLY DAMAGED.

Nationality and rig.	July.		August.		Septem-ber.		October.		Novem-ber.		Decem-ber.		Janu-ary.		Febru-ary.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
British barks.....									1																1		1
British schooners.....									1																2		2
British ships.....									1																14		14
British sloops.....																									1		1
British steamers.....	1	1			1														1	1					1	1	1
																			1	1					2	2	4
Total.....	1	1			1	4	1	5	2	2									5		1				5	18	23
Aggregate.....	2				5		6		4										5		1				23		

TABLE 33.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ending June 30, 1882, showing the TONNAGE and distinguishing the number of those TOTALLY LOST and those PARTIALLY DAMAGED.

Burden of vessels.	July.		August.		Septem-ber.		Octo-ber.		Novem-ber.		Decem-ber.		Janu-ary.		Febru-ary.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons.	4	9	6	10	2	2	2	2	1	5	1	1	2	1	1	2	1	1	7	2	7	1	9	7	53	60	
Over 50 and not exceeding 100 tons.	1	1	2	1	2	3	2	2	3	4	1	1	1	1	1	1	2	2	2	10	5	2	2	4	20	24	
Over 100 and not exceeding 200 tons.	7	7	2	16	1	10	4	14	4	14	1	1	1	2	6	1	6	10	9	1	9	1	11	9	88	97	
Over 200 and not exceeding 300 tons.	11	8	8	9	1	12	1	26	1	26	1	1	1	1	3	1	3	1	9	1	13	8	4	100	104		
Over 300 and not exceeding 400 tons.	9	3	3	7	9	9	2	10	2	10	2	2	1	1	2	1	2	6	8	1	8	2	2	4	58	62	
Over 400 and not exceeding 500 tons.	3	3	3	3	4	4	1	8	1	8	1	1	1	1	2	1	2	2	4	2	4	2	2	4	28	32	
Over 500 and not exceeding 600 tons.	1	1	1	3	2	2	1	5	1	5	1	1	1	1	1	1	1	1	2	1	2	2	2	3	13	16	
Over 600 and not exceeding 700 tons.	2	2	3	5	2	2	6	7	6	7	6	6	6	6	1	1	1	2	2	2	2	2	2	21	21		
Over 700 and not exceeding 800 tons.	2	2	3	5	2	2	6	6	6	6	6	6	6	6	1	1	1	1	2	1	2	2	2	19	19		
Over 800 and not exceeding 900 tons.	1	2	1	5	1	1	3	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	9	10		
Over 900 and not exceeding 1,000 tons.	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5		
Over 1,000 and not exceeding 1,100 tons.	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	2	2	8	8		
Over 1,100 and not exceeding 1,200 tons.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	7		
Over 1,200 and not exceeding 1,300 tons.	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5		
Over 1,300 and not exceeding 1,400 tons.	3	3	3	2	3	3	3	2	2	2	2	2	2	2	1	1	1	1	1	1	3	3	4	4	18	18	
Over 1,400 tons	4	4	1	1	3	3	3	3	3	3	3	3	3	3	2	2	2	1	1	1	1	1	2	14	14		
Unknown	1	1	33	9	63	1	50	14	94	1	5	5	3	3	5	4	17	4	45	1	60	2	42	37	469	506	
Total	53	53	33	72	51	108	6	3	49	61	21	5	3	5	21	49	61	44	506	506							
Aggregate	53	53	33	72	51	108	6	3	49	61	21	5	3	5	21	49	61	44	506	506							

NOTE.—In the column of "Partial loss" in this table are included the casualties in which the vessels sustained no damage, for the number of which see appropriate column in Table 26.

TABLE 34.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ending June 30, 1882, showing the number of vessels and distinguishing AGE.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years.....	14	6	13	6	11	...	1	4	4	6	7	7	76
Over 3 and not exceeding 7 years.....	9	4	4	6	10	...	...	...	1	5	6	4	46
Over 7 and not exceeding 10 years.....	9	4	14	11	20	1	...	...	4	13	14	9	96
Over 10 and not exceeding 14 years.....	8	6	17	11	26	2	1	...	2	9	6	10	98
Over 14 and not exceeding 20 years.....	8	9	12	10	21	2	1	...	3	9	14	4	96
Over 20 and not exceeding 25 years.....	2	1	5	...	12	1	...	...	2	2	5	2	33
Over 25 and not exceeding 30 years.....	...	3	3	2	4	...	...	1	1	2	6	3	23
Over 30 and not exceeding 35 years.....	...	...	2	1	2	...	...	...	1	2	1	1	10
Over 35 and not exceeding 40 years.....	...	...	...	...	...	...	...	...	...	...	...	...	1
Over 40 and not exceeding 45 years.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Over 45 and not exceeding 50 years.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Over 50 years.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Unknown.....	3	...	2	4	2	...	...	...	1	3	2	3	20
Total.....	53	33	72	51	108	6	3	5	21	49	61	44	506

TABLE 35.—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ending June 30, 1882, showing the number of vessels and distinguishing their CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast.....	14	11	17	7	15	1	3	3	14	20	20	17	142
Coal.....	8	5	10	6	16	...	...	...	...	5	1	2	53
Explosives.....	...	...	...	1	...	...	...	...	...	...	...	...	1
Fish.....	...	...	1	...	...	...	...	...	...	...	...	1	2
Fruit, &c.....	...	...	3	...	...	...	...	...	...	...	...	...	3
Grain.....	3	1	12	6	7	...	...	...	...	...	4	1	34
Iron and iron ore.....	6	1	4	6	8	3	...	...	1	4	11	2	46
Lumber.....	9	8	16	15	36	1	...	...	4	11	15	14	129
Merchandise (general).....	4	2	1	...	8	...	...	...	...	...	...	1	16
Provisions, &c.....	...	...	1	...	1	...	...	2	...	1	2	1	8
Railroad iron.....	...	...	...	...	1	...	...	...	...	...	...	...	1
Salt.....	...	...	...	1	1	...	...	...	...	...	...	...	2
Sand, plaster, &c.....	...	...	...	1	...	...	...	...	...	...	...	...	1
Stone, brick, &c.....	...	...	...	...	1	...	...	...	...	...	1	...	2
Wood, &c.....	1	...	2	1	8	...	...	...	1	1	...	...	14
Miscellaneous.....	...	1	3	2	4	1	...	...	...	4	1	...	16
Unknown.....	8	4	2	5	2	...	...	...	1	3	6	5	36
Total.....	53	33	72	51	108	6	3	5	21	49	61	44	506

TABLE 36—Abstract of returns of disasters to vessels on the GREAT LAKES during the year ending June 30, 1882, showing the number of vessels and distinguishing the LAKES and CONNECTING RIVERS on which they occurred.

Localities.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Lake Erie	10	4	10	7	18	2	....	1	2	4	16	4	78
Lake Huron	3	2	7	8	15	1	....	....	1	4	5	3	44
Lake Michigan	36	24	32	29	62	8	3	4	18	28	83	30	302
Lake Ontario .....	....	3	5	7	3	....	....	....	....	4	2	....	24
Lake Superior	1	....	3	1	2	....	....	....	....	....	1	1	9
Lake Saint Clair .....	....	....	....	1	1	....	....	....	....	5	....	....	7
Straits of Mackinaw .....	....	....	1	1	2	....	....	....	....	....	....	....	4
Detroit River	1	....	10	2	1	....	....	....	....	1	2	3	20
Saint Clair River .....	....	....	2	....	....	....	....	....	....	2	....	3	7
Saint Clair Flats Canal .....	....	....	....	....	2	....	....	....	....	....	....	....	2
Saint Mary's River	2	....	2	....	1	....	....	....	....	1	2	....	8
Welland Canal .....	....	....	....	....	1	....	....	....	....	....	....	....	1
Total	53	33	72	51	108	6	3	5	21	49	61	44	506

TABLE 37.—Summary—GREAT LAKES.

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number of crew.	Total on board.	Total number of lives lost.
Foundering	9	1,565	7	2	....	6	3	2	66	68	38
Strandings	130	56,544	98	32	....	18	112	19	1,155	1,174	8
Vessels collided	180	73,622	94	50	36	5	175	138	1,385	1,523	8
Other causes	187	55,280	129	58	....	8	179	298	1,585	1,883	19
Total	506	187,011	328	142	36	37	469	457	4,191	4,648	73

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 26.

RIVERS.

TABLE 38.—Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, showing the NUMBER and VALUE of VESSELS and CARGOES and amount of LOSS to same where known.

Months.	Total value of ves- sels.		Number of vessels, value unknown.	Total value of car- goes.		Number of cargoes, value unknown.	Unknown, whether laden or not.	Loss to vessels.		Number of vessels dam- aged, amount unknown.*	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged, or damage un- known.
	Number.	Amount.		Number.	Amount.			Number.	Amount.		Number.	Amount.		
July	26	\$549,600	1	13	\$155,100	.....	1	23	\$70,090	4	7	\$9,750	.....	7
August	25	430,300	.....	16	174,700	.....	.....	25	167,885	.....	6	61,500	.....	10
September	13	113,050	.....	7	10,360	.....	.....	12	7,275	.....	1	20	.....	6
October	22	571,200	1	11	25,270	2	1	20	30,720	3	4	4,450	.....	10
November	14	546,000	.....	10	262,155	.....	.....	14	102,360	.....	7	138,610	.....	3
December	27	507,905	1	15	434,575	3	1	27	159,725	1	7	55,000	.....	12
January	11	266,300	3	8	157,500	2	1	11	59,720	3	4	33,360	.....	7
February	7	67,700	1	6	87,025	.....	1	7	4,575	1	4	20,375	.....	3
March	22	423,400	.....	12	109,405	1	.....	21	313,310	1	6	39,160	.....	7
April	26	540,800	1	17	119,030	.....	1	22	86,965	5	8	14,455	.....	10
May	14	227,000	3	11	91,220	1	3	13	38,215	4	2	9,500	.....	13
June	17	328,500	1	6	69,190	2	1	17	43,910	1	1	600	.....	8
Total	224	4,577,755	12	132	1,695,530	11	10	212	1,085,050	24	57	386,780	.....	96

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 39.

TABLE 39.—Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, showing the number of VESSELS TOTALLY LOST, the number DAMAGED, aggregate TONNAGE of vessels totally lost, number of PASSENGERS and CREW, and number of LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss known.	Number of casualties resulting in no damage to vessels.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July	7	16	1	3	27	1,313	407	1,822	.....
August	8	17	.....	.....	25	2,610	335	330	1
September	2	10	.....	1	13	52	74	29	.....
October	2	18	1	2	23	271	330	220	9
November	5	9	.....	.....	14	1,910	372	206	1
December	9	18	1	.....	28	1,944	614	337	24
January	2	9	1	2	14	69	204	108	7
February	3	4	1	.....	8	1,749	44	6	4
March	9	12	.....	1	22	3,084	558	260	41
April	4	18	1	4	27	1,183	441	231	27
May	1	12	3	1	17	134	151	129	1
June	3	14	1	.....	18	662	409	414	3
Total	55	157	10	14	236	14,931	3,939	3,592	118

TABLE 40.—Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, showing the number of VESSELS and CARGOES INSURED and UNINSURED, and the AMOUNT of INSURANCE, where known.

Months.	Number of vessels and cargoes reported to be insured, and the amount of insurance.					Number of ves- sels and car- goes reported not insured.		Number of ves- sels and car- goes, whether insured or not, unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	Number.	Amount.	Number.	Amount.						
July	13	\$284, 500	5	\$27, 400	\$311, 900	13	5	1	4	13
August	12	149, 000	9	130, 400	279, 400	13	6	.....	1	9
September	3	10, 600	3	3, 740	14, 340	8	2	2	2	6
October	9	252, 700	1	400	253, 100	12	9	2	4	9
November	5	109, 600	5	234, 695	344, 295	9	5	.....	.....	4
December	14	233, 000	4	194, 000	427, 000	13	7	1	8	9
January	4	41, 000	4	105, 000	146, 000	8	5	2	2	3
February	2	6, 000	2	70, 000	76, 000	5	3	1	2	1
March	11	179, 240	2	15, 575	194, 815	11	6	.....	5	9
April	11	200, 450	5	33, 300	233, 750	14	11	2	2	9
May	7	68, 000	5	26, 000	94, 000	6	6	4	4	2
June	9	122, 100	2	46, 590	168, 690	8	2	1	5	9
Total	100	1, 656, 190	47	887, 100	2, 543, 290	120	67	16	39	83

TABLE 41.—Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, distinguishing the NATURE of each casualty.

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	2	2	1	1	...	3	...	...	...	...	...	2	11
Stranded	4	7	...	1	1	2	1	...	2	...	...	1	19
Collided	12	6	9	12	3	8	6	5	7	10	10	6	94
Damage to hull, masts, rigging, &c	2	...	...	3	3	2	1	1	...	2	2	...	16
Damage to machinery	1	1	...	...	1	2	1	...	4	2	1	2	15
Explosion of boiler, &c .....	...	...	...	...	...	...	1	...	2	2	...	...	5
Fire	3	3	1	3	2	7	1	1	4	2	2	...	29
Ice .....	...	...	...	...	...	2	...	1	...	...	...	...	3
Sprung a leak .....	...	2	1	1	2	1	...	...	...	...	...	...	7
Struck by lightning .....	...	...	...	...	...	...	...	...	...	...	...	1	1
Struck bridge, hidden obstruction, &c	2	4	1	2	2	1	3	...	3	9	2	6	35
Miscellaneous	1	...	...	...	...	...	...	...	...	...	...	...	1
Total	27	25	13	23	14	28	14	8	22	27	17	18	236

TABLE 42.—Abstract of returns of disasters (excluding collisions) to vessels on the RIVERS of the United States during the year ending June 30, 1882, distinguishing the CAUSE of each disaster.

Class and cause of disaster.	Foundering.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—Causes connected with the weather:					
Currents, tides, &c .....	...	6	3	...	9
Darkness .....	...	...	2	...	2
Gales, hurricanes, &c	7	1	6	...	14
Lightning .....	...	...	1	...	1
Total of Class 1	7	7	12	...	26
CLASS 3.—Causes connected with navigation and seamanship:					
Errors of masters, officers, or crew .....	...	...	2	...	2
Errors of pilots .....	...	1	...	...	1
Total of Class 3 .....	...	1	2	...	3
CLASS 4.—Causes connected with machinery or boilers:					
Damage to machinery .....	...	...	15	...	15
Explosion .....	...	...	5	...	5
Total of Class 4 .....	...	...	20	...	20
CLASS 5.—Other causes:					
Fire .....	...	...	27	...	27
Ice .....	...	...	6	...	1
Incendiarism .....	...	...	1	...	1
Spontaneous combustion .....	...	...	1	...	1
Sprung a leak	3	...	4	...	7
Struck rock, snag, sunken wreck, &c .....	...	9	37	...	46
Miscellaneous .....	...	2	2	...	4
Unknown	1	...	...	...	4
Total of Class 5	4	11	78	...	93
Aggregate	11	19	112	...	142

NOTE.—Class 2 includes disasters arising from causes connected with vessels, equipments, or stowage. No casualties are reported in this class.

TABLE 43.—*Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, showing the number of vessels COLLIDED, and distinguishing the CAUSE of each disaster.*

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Accidental	3		2					2	1	1	5	2	16
Bad management.....	1	1	1				1		1	1			6
Carelessness		2	1	1			1			3	2		10
Darkness				2	1	1							4
"Fault of other vessel".....	2	1	3	2	2	1	1		3	2	1	1	19
Fault of tug towing						1							1
Fog	1					2	2						5
High, baffling winds	3							3					6
Misunderstanding signals.....			1	1		2						1	5
Negligence.....	1		1	1						1	1	2	7
Want of proper lights.....		2		4		1	1						8
Unknown	1			1					2	2	1		7
Total.....	12	6	9	12	3	8	6	5	7	10	10	6	94

TABLE 44.—*Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, showing the number of vessels and distinguishing their DESCRIPTION.*

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barges	4	5	1	1	1	1	3	3		1	1		21
Barkentines		1						1					2
Brigs.....	1					1						1	3
Canal-boats						2							2
Schooners	1	4	7	4	1	3	2	1	3	4	8	5	43
Sloops.....		2	1	2		1				1			7
Steamers	21	13	4	15	12	20	9	3	19	21	7	12	156
Unknown				1							1		2
Total.....	27	25	13	23	14	28	14	8	22	27	17	18	236

TABLE 46.—Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, showing the TONNAGE and distinguishing the number of those TOTALLY LOST and those PARTIALLY DAMAGED.

Burden of vessels.	July.		August.		Septem-ber.		Octo-ber.		Novem-ber.		Decem-ber.		Jann-ary.		Febru-ary.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons.....	1	2	2	2	2	1	1	4	1	2	1	6	2	1	1	1	3	4	5	1	1	2	14	31	45		
Over 50 and not exceeding 100 tons.....	1	3	1	3	1	2	5	5	1	1	1	1	1	1	1	1	2	2	2	1	1	1	4	20	24		
Over 100 and not exceeding 200 tons.....	1	2	1	5	1	3	3	3	2	2	2	1	1	2	1	1	1	1	8	1	3	1	8	32	40		
Over 200 and not exceeding 300 tons.....	1	2	2	2	2	2	1	1	1	1	2	3	1	2	1	1	1	1	1	1	4	2	7	21	28		
Over 300 and not exceeding 400 tons.....	1	3	1	1	2	2	1	1	1	1	1	1	2	1	1	1	1	2	1	5	1	1	3	15	18		
Over 400 and not exceeding 500 tons.....	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	5	7	12		
Over 500 and not exceeding 600 tons.....	1	2	1	2	1	1	3	3	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	6	8		
Over 600 and not exceeding 700 tons.....	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	8	10		
Over 700 and not exceeding 800 tons.....	1	3	1	1	1	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1	1	1	1	4	5		
Over 800 and not exceeding 900 tons.....	1	3	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	2	1	1	1	3	7	10		
Over 900 and not exceeding 1,000 tons.....	1	3	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	4	4	4		
Over 1,000 and not exceeding 1,100 tons.....	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	7	7		
Over 1,100 and not exceeding 1,200 tons.....	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3		
Over 1,200 and not exceeding 1,300 tons.....	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	5	5		
Over 1,300 and not exceeding 1,400 tons.....	1	3	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
Over 1,400 tons.....	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	2	1	4	4	4		
Unknown.....	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	2	1	4	8	12		
Total.....	7	20	8	17	2	11	2	21	5	9	9	19	2	13	3	5	9	13	4	23	1	16	3	15	55	181	236
Aggregate.....	27	25	13	23	14	28	14	8	22	27	17	18	236														

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessels sustained no damage, for the number of which see appropriate column in Table 39.

TABLE 47.—*Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, showing the number of vessels and distinguishing AGE.*

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years.....	2	6	4	4	6	9	1	1	3	3	1	3	48
Over 3 and not exceeding 7 years.....	8	4	1	8	4	6	3	3	7	3	3	3	55
Over 7 and not exceeding 10 years.....	4	4			1	3	2		4	6	4	4	32
Over 10 and not exceeding 14 years.....	1	6	1	3	1	3	2	1	2	2	1	1	24
Over 14 and not exceeding 20 years.....	4	3	4	2	1	3	3		4	3	4	2	33
Over 20 and not exceeding 25 years.....	2			1	1	1			2	1	1	1	10
Over 25 and not exceeding 30 years.....	1		1	1							1		4
Over 30 and not exceeding 35 years.....			1	2						1			4
Over 35 and not exceeding 40 years.....													
Over 40 and not exceeding 45 years.....													
Over 45 and not exceeding 50 years.....													
Over 50 years.....													
Unknown.....	5	2	1	2		3	3	3		3	2	2	26
Total.....	27	25	13	23	14	28	14	8	22	27	17	18	236

TABLE 48.—*Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, showing the number of vessels and distinguishing their CARGOES.*

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast.....	13	9	6	9	4	9	3	1	9	9	2	9	83
Coal.....	1	3	3	3			2	2		1	3		18
Cotton, cotton-seed, &c.....					3	2	1		2			1	9
Fish, oysters, &c.....			1			1			3	1	1		7
Fruit, nuts, &c.....						1			1				2
Grain.....		2					3	1		1			7
Fertilizers.....						1							1
Hides, furs, &c.....		1											1
Ice.....	1	1	1										3
Iron and iron ore.....		1							1				2
Lime, &c.....										1	1		2
Lumber, &c.....	3	2	1		2	2				2	4	2	18
Merchandise (general).....	3	4		2	2	2	1	1	1	4	2	2	24
Provisions, &c.....										1		1	2
Salt.....				1									1
Stone, brick, &c.....	1		1	1	1								4
Sugar, molasses, &c.....						1		1			1		3
Wood, &c.....		1		1			1						3
Miscellaneous.....	4	1		5	2	8	2	1	5	6		2	36
Unknown.....	1			1		1	1	1		1	3	1	10
Total.....	27	25	13	23	14	28	14	8	22	27	17	18	236

TABLE 49.—Abstract of returns of disasters to vessels on the RIVERS of the United States during the year ending June 30, 1882, distinguishing the RIVERS on which they occurred.

Rivers.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Arkansas									1				1
Atchafalaya, Louisiana			1						1				1
Big Cypress, Texas									1				1
Big Sandy, Kentucky		1											1
Black, Wisconsin					1								1
Calcasieu, Louisiana			1						1				2
Cape Fear, North Carolina					1								1
Chattahoochee						1							1
Columbia		1			1		2						4
Connecticut		1	2										3
Delaware	4	2	5	5		2	2	3	2		9	5	39
Flint, Georgia				1									1
Great Kanawha									1				1
Green, Kentucky												1	1
Hudson	1	2		4	2	2	1		1	3	2		18
James, Virginia		3	1	1									5
Mississippi	10	6		5	3	7	3	4	7	7		7	59
Missouri	1				1				1	2			5
Neches, Texas										1			1
Nestuggah, Oregon		1											1
Ocklawaha, Florida						1			1				2
Ohio	5	1		3	3	6	2		2	2	3	4	31
Ouachita, Louisiana						1							1
Pamunky, Virginia					1								1
Penobscot	1												1
Potomac	2	2		3		1		1	3	7			19
Rappahannock	1												1
Red, Louisiana						2							2
Saint Croix	1	1										1	3
Saint John's, Florida							2			1	1		4
Saint Lawrence		1		1		1							3
San Joaquin, California							1						1
Satilla, Georgia		1											1
Savannah		1									1		2
Schuylkill, Pennsylvania			3										3
Skagit, Washington Territory						1							1
Snokomish, Washington Territory	1									1			2
Sunflower, Mississippi					1					1			2
Tennessee							1						1
Wateree, North Carolina										1			1
Willamette, Oregon		1									1		2
Yazoo, Mississippi									1	1			2
York, Virginia						3							3
Total	27	25	13	23	14	28	14	8	22	27	17	18	236

TABLE 50.—Summary—RIVERS.

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number of crew.	Total on board.	Total number of lives lost.
Foundering	11	1,154	5	6		5	6	12	65	77	9
Strandings	19	7,956	17	2		9	10	340	317	657	1
Vessels collided	94	74,624	50	34	10	4	90	1,857	1,252	3,109	1
Other causes	112	36,019	71	41		37	75	1,383	2,305	3,688	107
Total	236	119,753	143	83	10	55	181	3,592	3,939	7,531	118

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 39.

AT SEA OR IN FOREIGN WATERS.

TABLE 51.—Abstract of returns of disasters to American* vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, showing the NUMBER and VALUE of VESSELS and CARGOES and amount of LOSS to same where known.

Months.	Total value of ves- sels.		Number of vessels, value unknown.	Total value of car- goes.		Number of cargoes, value unknown.	Whether laden or not, un- known.	Loss to vessels.		Number of vessels dam- aged, amount unknown.†	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged, or damage un- known.
	Number.	Amount.		Number.	Amount.			Number.	Amount.		Number.	Amount.		
July	13	\$235,000	2	11	\$528,585	...	2	13	\$131,720	...	5	\$157,520	...	8
August	37	659,200	2	37	604,775	...	2	37	282,375	...	19	81,660	...	20
September	25	366,500	1	19	520,600	3	1	24	182,815	...	7	138,600	1	15
October	34	504,700	...	25	462,220	1	...	32	261,080	...	16	319,040	...	10
November	30	557,500	...	25	579,710	1	...	29	387,875	...	14	254,630	...	12
December	25	351,500	2	20	882,300	1	2	24	112,475	...	11	42,400	...	12
January	33	662,400	1	27	894,020	1	1	30	158,090	...	16	114,360	...	13
February	29	305,500	...	21	202,595	5	...	28	142,675	...	10	56,135	4	12
March	33	661,700	2	28	783,595	4	2	31	352,000	...	13	198,190	3	18
April	23	1,089,100	...	20	1,112,900	...	...	22	148,930	...	9	70,700	...	11
May	13	397,100	3	12	640,850	...	2	14	42,120	...	5	225,940	...	9
June	15	305,000	...	9	448,405	2	1	15	185,500	...	6	211,460	...	6
Total	310	6,095,200	13	254	7,158,555	18	13	299	2,382,655	...	131	1,870,635	8	146

* In the totals of casualties presented in the following thirteen tables are included, in order to show the whole number of vessels in collision, ten foreign vessels which have collided with American vessels at sea or in foreign waters during the year.

† In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 52.

TABLE 52.—Abstract of returns of disasters to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, showing the number of VESSELS TOTALLY LOST, the number DAMAGED, aggregate TONNAGE of vessels totally lost, number of PASSENGERS and CREW, and number of LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial, loss known.	Number of casualties resulting in no damage to vessels.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July	5	8	2	.....	15	2,114	148	4	14
August	7	30	2	.....	39	4,735	465	36	13
September	8	16	1	1	26	3,263	304	12	27
October	13	19	.....	2	84	6,411	389	10	24
November	12	17	.....	1	30	4,766	358	16	30
December	7	17	2	1	27	1,893	274	1	10
January	11	19	1	3	34	4,666	365	3	14
February	12	16	.....	1	29	4,124	341	2	77
March	11	20	2	2	35	6,586	374	5	28
April	5	17	.....	1	23	1,754	414	449	.....
May	2	12	2	.....	16	717	869	739	.....
June	9	6	.....	.....	15	4,715	180	42	5
Total	102	197	12	12	328	45,744	3,981	1,819	242

TABLE 53.—Abstract of returns of disasters to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, showing the number of VESSELS and CARGOES INSURED and UNINSURED, and the AMOUNT of INSURANCE, where known.

Months.	Number of vessels and cargoes reported to be insured, and the amount of insurance.					Number of vessels and cargoes reported not insured.		Number of vessels and cargoes, whether insured or not, unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	Number.	Amount.	Number.	Amount.						
July	10	\$114,800	6	\$363,530	\$477,830	3	1	2	6	2
August	24	301,065	15	237,335	538,400	12	13	3	11	.....
September	16	149,300	6	347,300	496,600	7	6	3	11	3
October	24	206,710	15	229,245	435,955	10	4	.....	7	3
November	16	194,850	11	230,060	424,910	12	7	2	8	4
December	15	127,155	11	157,790	284,945	5	.....	7	12	4
January	18	157,020	10	320,185	477,205	12	10	4	9	5
February	19	101,135	9	66,695	167,830	7	11	3	6	3
March	25	217,985	18	479,625	697,610	7	7	3	9	1
April	14	283,550	13	631,740	915,290	8	2	1	5	3
May	7	221,000	5	305,700	526,700	6	4	3	5	2
June	9	147,655	3	25,000	172,655	2	.....	4	9	3
Total	197	2,221,725	122	3,394,205	5,615,930	91	65	35	98	38

TABLE 54.—Abstract of returns of disasters to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, distinguishing the NATURE of each casualty.

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	1	4	2	2	2	2	4	7	3			2	29
Stranded	5	4	3	12	7	5	3	2	4	6	4	7	62
Collided	6	4	4	4		3	4		8	2	6		44
Abandoned				1			2	1					4
Damage to hull, masts, riggings, &c	2	16	8	9	10	6	6	9	11	4	2	2	85
Damage to machinery		2					1			1		1	5
Explosion							1						1
Fire		1	2	1	4				1		3	2	14
Ice												1	1
Never heard from			1	1	2	1		2	2				9
Sprung a leak		3	4	3	2	4	8	4	3	8	1		40
Struck by lightning	1								1	1			3
Waterlogged		2	1										3
Miscellaneous		3	1	1	3	3	5	4	2	1			23
Total	15	39	26	34	30	27	34	29	35	23	16	15	323

TABLE 55.—Abstract of returns of disasters (excluding collisions) to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, distinguishing the CAUSE of each disaster.

Class and cause of disaster.	Foundering.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—Causes connected with the weather:					
Calms, currents, and tides		10			10
Darkness		1			1
Fog, &c		6	1		7
Gales, hurricanes, &c	23	22	113		158
Heavy sea, &c		2	28		30
Lightning			3		3
Total of Class 1	23	41	145		209
CLASS 2.—Causes connected with vessels, equipments, or stowage:					
Defective chart		1			1
Defective mast, rigging, &c			2		2
Error in chronometer		2			2
Explosion of gasoline			1		1
Total of Class 2		3	3		6
CLASS 3.—Causes connected with navigation and seamanship:					
Errors of masters, officers, or crew		4			4
Errors of pilots		2			2
Total of Class 3		6			6
CLASS 4.—Causes connected with machinery or boilers:					
Damage to machinery			5		5
Total of Class 4			5		5
CLASS 5.—Other causes:					
Absence of light or buoys		2			2
Fire			8		8
Ice			1		1
Incendiarism			1		1
Spontaneous combustion			2		2
Sprung a leak	4	1	10		15
Struck rock, wreck, bridge, &c		4			4
Miscellaneous		1			1
Unknown	2	4	4	9	19
Total of Class 5	6	12	26	9	53
Aggregate	29	62	179	9	279

TABLE 56.—Abstract of returns of disasters to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, showing the number of vessels COLLIDED, and distinguishing the CAUSE of each disaster.

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Accidental									2				2
Bad management.....						1							1
Carelessness	1		1										2
Darkness			1										1
"Fault of other vessel"	1	1	1	1		2	2				2		10
Fog	2	1		2					2	2			11
High winds						2							2
Stress of weather.....							2		2				4
Unknown	2	2	1	1		1			2		2		11
Total.....	6	4	4	4		6	4		8	2	6		44

TABLE 57.—Abstract of returns of disasters to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, showing the number of vessels and distinguishing their DESCRIPTION.

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barks	2	5	1	6	6	6	6	6	5	5	6	5	59
Barkentines	1			1	1				1			1	5
Brigs	2	4	3		3	2	4	5	5	3	1	1	33
Brigantines						1		1		1			3
Schooners	5	21	17	20	15	12	18	15	16	11	5	5	160
Ships	4	4	4	6	3	5	2	2	7		1	1	39
Sloops		1											1
Steamers	1	2					2		1	1	2	1	10
Steamships		1	1	1	2	1	2			2	1	1	12
Unknown		1											1
Total.....	15	39	26	34	30	27	34	29	35	23	16	15	323

TABLE 58.—Abstract of returns of disasters to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, showing the TON-
NAGE and distinguishing the number of those TOTALLY LOST and those PARTIALLY DAMAGED.

Burden of vessels.	July.		August.		Septem-ber.		Octo-ber.		Novem-ber.		Decem-ber.		Jann-ary.		Februa-ry.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons.....	2	4	2	4	2	4	1	3	2	2	1	2	1	4	6	1	4	1	1	5	1	2	2	1	8	4	12
Over 50 and not exceeding 100 tons.....	2	1	1	8	3	3	5	1	5	1	1	2	2	2	1	4	1	3	1	1	5	1	1	1	17	33	50
Over 100 and not exceeding 200 tons.....	1	1	1	3	1	2	3	2	2	2	2	3	1	4	1	1	1	3	1	1	1	2	1	1	17	33	50
Over 200 and not exceeding 300 tons.....	1	3	3	5	1	2	1	2	2	1	2	3	3	4	1	3	6	1	2	1	2	2	1	1	7	30	37
Over 300 and not exceeding 400 tons.....	1	3	3	1	1	2	2	2	2	2	1	2	3	3	2	2	1	1	1	1	1	1	2	1	8	24	32
Over 400 and not exceeding 500 tons.....	1	3	1	1	1	2	2	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	9	14	23
Over 500 and not exceeding 600 tons.....	1	1	1	1	1	1	2	2	2	2	3	3	2	3	3	1	1	3	2	2	3	2	1	2	9	22	31
Over 600 and not exceeding 700 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	2	1	1	1	1	1	1	6	11	17
Over 700 and not exceeding 800 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1	1	1	1	1	6	7
Over 800 and not exceeding 900 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	4	2	6
Over 900 and not exceeding 1,000 tons.....	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	5	5	8
Over 1,000 and not exceeding 1,100 tons.....	1	1	1	1	1	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3	5	8
Over 1,100 and not exceeding 1,200 tons.....	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	1	7
Over 1,200 and not exceeding 1,300 tons.....	1	1	1	1	1	1	1	1	2	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	3	6	9
Over 1,300 and not exceeding 1,400 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	5	7
Over 1,400 tons.....	2	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	4	4	1	1	2	16	18
Over 1,500 tons.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4	4
Unknown.....	5	10	7	32	8	18	13	21	12	18	7	20	11	23	12	17	11	24	5	18	2	14	9	6	102	221	323
Total.....	5	10	7	32	8	18	13	21	12	18	7	20	11	23	12	17	11	24	5	18	2	14	9	6	102	221	323
Aggregate.....	15	39	26	34	30	27	34	34	30	27	34	34	29	35	23	16	15	323									

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessel sustained no damage, for the number of which see appropriate column in Table 52.

TABLE 59.—Abstract of returns of disasters to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, showing the number of vessels and distinguishing AGE.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years.....	1	8	4	3	3	1	5	5	4	3	1	1	39
Over 3 and not exceeding 7 years	4	8	4	9	5	5	3	4	5	3	4	2	58
Over 7 and not exceeding 10 years.....		1	7	3	3	5	9	3	5	2	2	1	41
Over 10 and not exceeding 14 years.....	6	8	4	5	5	2	2	5	5	2	2	5	51
Over 14 and not exceeding 20 years.....	2	6	3	8	5	11	5	4	12	7	3	1	67
Over 20 and not exceeding 25 years.....	1	2	1	1	3	2	1	5		1	1		18
Over 25 and not exceeding 30 years.....		1		2	1		4	1	2	2	1	1	15
Over 30 and not exceeding 35 years.....		3	1		2		2	1	1	1	1		12
Over 35 and not exceeding 40 years.....			1				1			1			3
Over 40 and not exceeding 45 years.....				1	2							1	4
Over 45 and not exceeding 50 years.....													
Over 50 years							1	1					2
Unknown	1	2	1	2	1	1	1		1	1	1	3	15
Total.....	15	39	26	34	30	27	34	29	35	23	16	15	323

TABLE 60.—Abstract of returns of disasters to American vessels AT SEA or in FOREIGN WATERS during the year ending June 30, 1882, showing the number of vessels and distinguishing their CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast	2		3	8	4	4	5	3	1	3	2	3	38
Coal.....		4	1	1	1	2	2	3	3	2		2	21
Cotton, cotton-seed, oil, &c.....			1		1	2	1		1			1	7
Fertilizers		3			2	1	3		4	1	1		15
Fish, oysters, &c	1	4	2	1	2			6	4		2	1	23
Fruit, nuts, coffee, &c.....							1	1	3	1		1	7
Grain	2	1	1			2			1		1	1	9
Hides, furs, &c				1		1			2				4
Iron and iron ore.....				3				1					4
Lime			1	1	1								3
Logwood, &c.....						1			1			1	3
Lumber, &c	2	10	7	9	8	6	10	4	2	2	2		62
Merchandise (general)	2	5	3	7	4	3	3	3	2	3	3	1	39
Naval stores		1	1										2
Nitrate of soda.....	1												1
Petroleum							1	2					3
Provisions, &c		1						1					2
Railroad iron, &c.....		1			2		1		1	1		1	7
Salt		2				1							3
Stone, bricks, &c		1	1	1		2	1	1					7
Sugar, molasses, &c	2		1		1		1	1	5	6			17
Whale oil, &c	1	1	1		1		1	3		2		1	11
Wood, &c											1		1
Miscellaneous.....		3	2	2	3		3		3	2	2	1	21
Unknown	2	2	1			2	1		2		2	1	13
Total.....	15	39	26	34	30	27	34	29	35	23	16	15	323

TABLE 61.—Summary—AT SEA or in FOREIGN WATERS.

Nature of casualties.	Number of ves- sels.	Total number of tons.	Laden.	Ballast.	Un- known whether laden or not.	Total loss.	Partial and un- known loss.*	Number of pas- sengers.	Number of crew.	Total on board.	Total number of lives lost.
Foundering.....	29	12, 710	24	5		29		2	321	323	85
Strandings.....	62	27, 399	50	11	1	43	19	60	694	754	17
Vessels collided.....	44	23, 601	24	8	12	3	41	81	612	693	8
Other causes.....	188	92, 774	174	14		27	161	1, 176	2, 854	3, 530	132
Total.....	323	156, 484	272	38	13	102	221	1, 319	3, 981	5, 300	242

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 52.

TABLE 62.—GENERAL SUMMARY.

Nature of casualties.	Number of vessels.	Aggregate tonnage.	Laden.	Ballast.	Unknown whether laden or not.	Wrecks involving total loss.	Casualties involving partial and unknown damage.	Number of passengers.	Number of crew.	Total on board.	Number of lives lost.
Foundering:											
Atlantic and Gulf coasts	40	2,965	28	12	.....	28	12	11	114	125	13
Pacific coast	5	214	5	.....	.....	3	2	.....	16	16	.....
Great lakes	9	1,565	7	2	.....	6	3	2	66	68	38
Rivers	11	1,154	5	6	.....	5	6	12	65	77	9
At sea or in foreign waters	29	12,710	24	5	.....	29	.....	2	321	323	85
Total	94	18,608	69	25	.....	71	23	27	532	609	145
Strandings:											
Atlantic and Gulf coasts	288	62,553	217	70	1	115	173	359	2,103	2,462	27
Pacific coast	25	10,346	20	5	.....	17	8	139	301	440	2
Great lakes	130	56,544	98	32	.....	18	112	19	1,155	1,174	8
Rivers	19	7,956	17	2	.....	9	10	340	317	657	1
At sea or in foreign waters	62	27,399	50	11	1	43	19	60	694	754	17
Total	524	164,698	402	120	2	202	322	917	4,570	5,487	55
Vessels collided:											
Atlantic and Gulf coasts	409	111,174	208	132	69	18	391	4,650	4,170	8,820	11
Pacific coast	40	21,548	15	18	7	1	39	394	388	782	.....
Great lakes	180	73,622	94	50	36	5	175	138	1,385	1,523	8
Rivers	94	74,624	50	34	10	4	90	1,857	1,252	3,109	1
At sea or in foreign waters	44	23,601	24	8	12	3	41	81	612	693	8
Total	767	304,569	391	242	134	31	736	7,120	7,807	14,927	28
Other causes:											
Atlantic and Gulf coasts	200	48,662	148	52	.....	14	186	1,815	1,693	3,508	8
Pacific coast	23	6,484	12	11	.....	3	20	47	242	289	.....
Great lakes	187	55,280	129	58	.....	8	179	298	1,585	1,883	19
Rivers	112	36,019	71	41	.....	37	75	1,383	2,305	3,688	107
At sea or in foreign waters	188	92,774	174	14	.....	27	161	1,176	2,354	3,530	132
Total	710	239,219	534	176	.....	89	621	4,719	8,179	12,898	266
Grand total	2,095	727,094	1,396	563	136	393	1,702	12,783	21,138	33,921	*494

RECAPITULATION.

	Number of vessels.	Aggregate tonnage.	Laden.	Ballast.	Unknown whether laden or not.	Wrecks involving total loss.	Casualties involving partial and known damage.	Number of passengers.	Number of crew.	Total on board.	Number of lives lost.
Atlantic and Gulf coasts.....	937	225,254	601	266	70	175	762	6,835	8,080	14,915	59
Pacific coast.....	93	38,592	52	34	7	24	69	580	947	1,527	2
Great lakes.....	506	187,011	328	142	36	37	469	457	4,191	4,648	73
Rivers.....	286	119,753	143	83	10	55	181	3,592	3,939	7,531	118
At sea or in foreign waters.....	323	156,484	272	38	13	102	221	1,319	3,981	5,300	242
Total.....	2,095	727,094	1,396	563	136	393	1,702	12,783	21,138	33,921	494

	Atlantic and Gulf coasts.	Pacific coast.	Great lakes.	Rivers.	At sea or in foreign waters.	Aggregate.
Total value vessels involved.....	\$14,428,745	\$2,467,600	\$9,527,625	\$4,577,755	\$6,095,200	\$37,096,925
Total value cargoes involved.....	4,703,145	340,125	2,618,150	1,695,530	7,158,555	16,515,505
Aggregate.....	\$19,131,890	\$2,807,725	\$12,145,775	\$6,273,285	\$13,253,755	\$53,612,430
Total insurance on vessels.....	\$2,773,940	\$925,100	\$3,893,140	\$1,656,190	\$2,221,725	\$11,470,095
Total insurance on cargoes.....	1,569,820	136,760	1,515,700	887,100	3,394,205	7,503,585
Aggregate.....	\$4,343,760	\$1,061,860	\$5,408,840	\$2,543,290	\$5,615,930	\$18,973,080
Total losses to vessels.....	\$1,966,920	\$558,595	\$866,233	\$1,085,050	\$2,382,655	\$6,859,453
Total losses to cargoes.....	763,255	132,180	262,130	386,780	1,870,635	3,414,980
Aggregate.....	\$2,730,175	\$690,775	\$1,128,363	\$1,471,830	\$4,253,290	\$10,274,433
Total tonnage vessels involved.....	225,254	38,592	187,011	119,753	156,484	727,094
Total tonnage vessels lost.....	32,776	7,692	9,524	14,931	45,744	110,667

* In addition to the number of lives lost here reported, 209 lives were lost in cases where no other casualty occurred to the vessels, making the total number of lives lost 703.

BLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, and to American vessels at sea or in foreign waters, involving LOSS OF LIFE, during the year ending June 30, 1882, in four divisions, viz: (1) Foundering; (2) Strandings; (3) Collisions; and (4) Casualties from other causes; showing in each case, when known, the DESCRIPTION of the VESSEL and the CARGO, the number of LIVES LOST, and the DATE and PLACE of disaster, &c.*

(1) FOUNDERINGS.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result- ing in total or partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.
1881. July 16	Annie S. Hall	American bark	455	New Chwang, China	Hong-Kong, China	Total	Beans and gen- eral merchan- dise.	1	Tai-Choo Islands, China.
Aug. 24	Mary J. Fisher	American schooner	140	Philadelphia, Pa.	Wilmington, N. C.	do	Coal	4	Thirty miles west of Frying-Pan Light-ship, N. C.
27	Brunswick	American bark	506	Pascagoula, Miss.	Philadelphia, Pa.	do	Lumber	3	Sixty miles east of Tybee, Ga.
28	Sandusky	American ship	1,018	Pensacola, Fla.	Liverpool, England	do	do	3	One hundred and twenty miles southeast of Cape Hatteras, N. C.
Sept. 9	Walter E. Palmer	American schooner	128	Wilmington, N. C.	Hayti, W. I.	do	do	5	At sea.
10	Columbia	British steamer	408	Chicago, Ill.	Collingwood, Canada	do	Corn	16	Six miles west of Frankfort, Mich., Lake Michigan.
10	Guy Cunningham	American schooner	88	Gloucester, Mass.	Grand Bank	do	Ballast	14	Grand Bank.
Oct. 5	James S. Hewitt	do	204	Washington, D. C.	Craney Island, Va.	do	Fertilizer	2	Off New Point, Chesapeake Bay.
27	Jennie Gilchrist	American steamer	74	Rock Island, Ill.	Princeton, Iowa	Partial	Miscellaneous	9	Rock Island, Ill., Mississippi River.
Nov. 1	Moses Knowlton	American schooner	111	Port Spain, Trinidad, W. I.	Morant Keys, B. W. I.	Total	Ballast	1	Lat. 16° 40' N., long. 74° 50' W.
4	Delia Hodgkins	do	95	Greenland	New London, Conn.	do	Oil and bone	5	Four miles off Pollock Rip light- ship, Mass.
15	E. P. Dorr	do	216	Toledo, Ohio	Buffalo, N. Y.	do	Lumber	7	Between Tecumseh and Port Col- borne, Lake Erie.
19	Mary Jane	British bark	345	Port Hope, Canada	Erie, Pa.	do	Telegraph poles	9	Lake Erie.
—	Monsoon	American schooner	132	Muskegon, Mich.	do	do	Lumber	6	Between Chicago and Grand Haven, Lake Michigan.
Dec. 23	E. T. Co., No. 24	American scow	61	Jersey City, N. J.	New Haven, Conn.	do	Coal	1	Between Shippan Point and Nor- walk Islands, Long Island Sound.
1882. Jan. 5	Ranier	American bark	499	Port Townsend, Wash. Ter.	Honolulu, Hawaii Islands.	do	Lumber	1	Lat. 46° 37' N., long. 130° W.
Jan. 23	S. P. Brown	American schooner	149	New York City	Newburyport, Mass.	do	Coal	4	Off Chatham, Mass. (supposed).
Feb. 4	Stampede	do	145	Jacksonville, Fla.	New York City	do	Lumber	1	Sixty miles east of Frying-Pan Shoals, N. C.
6	Bellerophon	do	87	Gloucester, Mass.	Grand Bank	do	Fish	14	Grand Bank.

6 Nevada.....	American ship.....	1,117	New York City.....	Hamburg, Germany.....	Petroleum.....	1	Lat. 39° 26' N., long. 69° 30' W.
17 H. D. Brookman.....	American bark.....	688	do.....	London, England.....	Naphtha and refined oil.....	4	At sea.
— Beale W. Bomes.....	American schooner.....	93	Gloucester, Mass.....	Fishing.....	Fish.....	14	Grand Bank.
— Charles Carrell.....	do.....	59	do.....	do.....	do.....	11	Saint George's Bank.
Mar. 10 Screamer.....	American ship.....	1,203	Philadelphia, Pa.....	New Orleans, La.....	Coal.....	4	Lat. 32° 32' N., long. 74° 47' W.
23 Dispatch.....	American sloop.....	46	Cold Spring Harbor, N. Y.....	New York City.....	Brick.....	2	Scotch Cap.
28 Brooklyn.....	American dredge.....	.....	New York City.....	do.....	Ballast.....	1	
Apr. 31 Eleanor.....	American sloop.....	10	Wadmalaw Island, S. C.....	Togodo, S. C.....	Provisions.....	2	St. S. C.

Totals: Vessels, 27; tonnage, 8,077; total losses, 25; partial losses, 2; lives lost, 145.

(2) STRANDING.

1881.	Ship	Origin	Destination	Port of Call	Goods	Quantity	Remarks
July 27	Calcutta	American ship	Philippine Islands	Boston, Mass	Sugar and hemp	13	Kadruia, Africa.
Aug. 19	Victoria	American steamer	Navalmo, B. C.	San Francisco, Cal	Coal	1	Pillar Point, Straits of Fuca, Wash. Ter.
28	Nettie Langdon	American schooner	Darien, Ga	St. John, N. B	Lumber	2	Cape Romain Shoals, S. C.
28	State of New York	American steamer	South Glastonbury, Conn.	New York	Assorted	1	Plata off East Haddam, Conn., Connecticut River.
Sept. 9	Mary Bear	American schooner	Baltimore, Md	Wilmington, N. C.	Corn, oil, nails, and iron	1	New Topsail Inlet, N. C.
15	D. A. Van Valkenburg	American bark	Chicago, Ill	Buffalo, N. Y.	Corn	8	Whitefish Bay, Wis., Lake Michigan.
Oct. 5	Thomas J. Lancaster	American schooner	Boston, Mass	Savannah, Ga	Ice	7	Loggerhead Inlet, N. C.
5	Mannet	Spanish bark	Sapelo Island, Ga	Brunswick, Ga	Ballast	2	North point of Jekyll Island, Geo.
27	Humboldt	American ship	Shanghai, China	New York City	General	3	Paracel Reefs, China Sea.
27	James B. Bell	American bark	San Francisco, Cal	Manzanillo, Mexico	Lumber and general merchandise	1	Manzanillo, Mexico.
1882.	F. L. Carney	do	Navassa, W. I.	Baltimore, Md	Guanos	10	N. C.
Jan. 22	John D. Buckalew	American schooner	Perth Amboy, N. J.	Newport, R. I.	Coal	2	Montauk
Feb. 18	Dauntless	American aloop	New Inlet, Va	Franklin City, Va	Oysters	2	Inlet, Va.
Mar. 2	W. J. Stairs	British bark	Liverpool, England	New York City	Salt	1	Harbor,
Apr. 4	H. L. Therman	American schooner	San Francisco, Cal	Fishing	Salt and provisions	2	Cal.

Totals: Vessels, 15; tonnage, 9,549; total losses, 11; partial losses, 3; no damage, 1; lives lost, 58.

TABLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.*—Continued.
(3) COLLISIONS.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result or partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.
1881. July 5	Wilcox.....	American sail-boat.				No dam- age.		1	Near Field's Point, Providence River, R. I.
Aug. 12	Mary Powell.....	Rowboat.....		Poughkeepsie, N. Y.		do		2	Poughkeepsie, N. Y., Hudson River.
22	No name.....	do				do		2	Off Field's Point, Providence, R. I.
23	do	Yawl.....				do		1	Off Money Point, Elizabeth River, Va.
27	Jesse Williamson, jr.	American schooner..	157	New York City	Boston, Mass.	Total....	Coal	1	Off Minot's Light, Boston Harbor, Mass.
27	H. B. Plant.....	American steamer..	288	In Savannah Harbor, Ga.		Partial..	Ballast	1	Savannah, Ga.
Sept. 16	No name.....	Skiff.....		Dubuque, Iowa	On way to steamer A. J. Whitney.	No dam- age.		1	Mississippi River.
21	Monie.....	American schooner..	9	Deal's Island, Md.	Baltimore, Md.	Partial	Oysters	1	Off Poplar Island, Chesapeake Bay.
Oct. 12	No name.....	Rowboat.....				No dam- age.		1	San Francisco, Cal.
26	P. M. Wheaton.....	American schooner..	242	Newburg, N. Y.	Providence, R. I.	Total	Coal	1	Near Gull Island, Long Island Sound.
Nov. 12	Carlingford.....	do	470	Duluth, Minn.	Buffalo, N. Y.	do	Wheat	1	Off Dunkirk, N. Y., Lake Erie.
12	Brunswick.....	American steamer..	1, 120	Buffalo, N. Y.	Duluth, Minn.	do	Coal	3	Do.
23	W. F. Gaylord.....	do	60	Clifton, W. Va.	Smith's Landing, Ohio.	do	Ballast	1	Off Ashland, Ky., Ohio River.
Dec. 10	Commerce.....	American schooner..	68	New York City	Wood's Holl, Mass.	do	Sulphur	1	New York Harbor.
1882. Jan. 2	Sarah W. Blake.....	American schooner..	111	Perth Amboy, N. J.	Taunton, Mass.	do	Coal	4	Off Point Judith, R. I.
20	E. B. Ward, jr.*.....	American steamship	388	New Orleans, La.	Belize, C. A.	No dam- age.	General merchan- dise.	16	At sea.
21	Alfred.....	American brig.....	295	Demarara, S. A.	New York City	Total....	Sugar	8	Off the coast of Delaware.
Feb. 22	Canton.....	American sloop.....	32	In Boston Harbor, Mass.		do	Ballast	1	Boston Harbor, Mass.
Apr. 15	Clayton Bell.....	American schooner..	300	Saint Ignace, Mich.	Erie, Pa.	do	Iron	4	Fifteen miles above Port Huron, Mich.
June 28	Clara.....	American steamer..	58	New York City	Port Johnson, N. J.	Partial..	Ballast	1	Port Johnson, N. J.

Totals: Vessels, 20; tonnage, 3,598; total losses, 10; partial losses, 3; no damage, 7; lives lost, 36.

* In collision with the Swedish bark Henrick.

† The six lives were lost at sea from the Swedish bark, and are not included in the totals of this table.

TABLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.—Continued.*

(4) OTHER CAUSES.

Date of disaster.	Name of vessel.	Description of vessel.	Tonnage.	Port sailed from.	Port bound to.	Whether result or partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.	Nature of casualty.
1881. July 1	Josephine	Am. brig	218	San Francisco, Cal	Humboldt, Cal	Node- age.	Ballast	1	Lat. 37° 48' N., long 129° W	Fell overboard in a fit.
4	City of Quincy	Am. str	185	Portland, Oreg	Oregon City, Oreg	do	Unknown	1	Williamette River	Fell overboard from mid- dle deck.
5	Red, White, and Blue	Am. sch	447	Escauba, Mich	Chicago, Ill	do	Iron ore	1	Chicago, Ill., Lake Mich- igan.	Fell overboard.
6	City of Napa	do	73	Bowen's Landing, Cal.	Vallejo, Cal	do	Lumber	1	Fifteen miles westward of Point Reyes, Cal.	Knocked overboard by fore boom.
8	Hickory	Am. str	226	Cairo, Ill	Saint Louis, Mo	do	Iron and lum- ber.	1	Able's Point, Ill., Mis- sissippi River.	Fell overboard while drunk.
9	Narragansett	do	1,634	New York City	Stonington, Conn	do	Unknown	1	Stonington, Conn	Fell overboard from hur- ricane.
9	Salamander	Am. sch	30	Petaluma, Cal	Richardson Bay, Cal.	do	Flour, bran, and hay	1	Petaluma Flat, San Pa- blo Bay, Cal	Fell overboard while drunk.
12	Pioneer	do	19	Alexandria, Va		do	Unknown	1	Alexandria, Va	Fell overboard from port gangway.
16	Sappho	Am. str	323	Charleston, S. C	Mount Pleasant, S. C	do	Ballast	1	Charleston Harbor, S. C	Fell overboard.
18	Forest Flower	do	19	Cedar Keys, Fla	Withlacoochee River, Fla.	do	Supplies	1	Withlacoochee River, Fla.	Fell overboard.
19	City of Winnipeg	British str	800	Collingwood, Can- ada.	Duluth, Minn	Total	General mer- chandise.	4	Duluth Bay, Minn., Lake Superior.	Fire.
21	Alfred D. Snow	Am. ship	2,075			Node- age.	Unknown	1	Near San Francisco, Cal	Unknown.
21	Ida C. Bullard	Am. sch	546	Aspinwall, C. A.	New York City	do	do	1	Off Sandy Hook, N. J.	Fell overboard from jib- boom.
22	Seaweed	Am. str	26	At anchor in Beau- fort River, S. C.		do	do	1	Beaufort River, S. C.	Fell overboard.
22	Tempest	do	258	Chicago, Ill.	Montague, Mich	do	Ballast	1	Fifteen miles east of Grosse Point, Lake Michigan	Lost overboard.
23	Oakes Ames	Am. sch	290	At anchor at New- ark, N. J.		do	Plaster	1	Newark, N. J.	Knocked into hold by bar- rel of plaster.
23	Seaboard	Am. str	662	City Point, James River, Va.	Baltimore, Md	do	Unknown	1	Off Newport News, Va.	Fell overboard (sup- posed).

TABLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.*—Continued.

(4) OTHER CAUSES—CONTINUED.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result or partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.	Nature of casualty.
1881.										
July 26	D. E. Knight	Am. str.	168	Vallejo, Cal.	San Francisco, Cal.	No damage.	Ballast	1	Near Mare Island, Cal.	Dragged overboard by fouling of two lines.
26	Shawnee	Am. sch.	572	Marquette, Mich.	Cleveland, Ohio	do	Iron ore	1	Off Cleveland, Ohio, Lake Erie.	Fell overboard while taking in sail.
29	Annie Vought	do	680	Chicago, Ill.	Buffalo, N. Y.	do	Corn	1	Buffalo, N. Y.	Fell into hold while shifting vessel at elevator.
Aug. 1	City of Traverse	Am. str.	1,153	do	Traverse City, Mich.	do	Merchandise	1	Four miles west of Mission Point, Lake Michigan.	Jumped overboard (supposed insane).
1	Vulcan	do	251	Bridgeport, Conn.	New York City	do	Steel and barrels.	1	Penfield Reef, Long Island Sound.	Fell overboard (supposed).
2	Zenobia	Am. sch.	79	Cape Negro, N. S.	Fishing	do	Unknown	2	Lat. 43° 8' N., long. 51° 15' W.	Upsetting of dory.
2	Champlain	Am. str.	438	Cheboygan, Mich.	Chicago, Ill.	do	Ballast	1	Chicago River, Ill.	Steam barge struck staggering, knocking man off.
3	E. P. Beals	Am. sch.	374	Marquette, Mich.	Erie, Pa.	do	Iron ore	1	Fifteen miles east of Point au Sable, Lake Superior.	Fell overboard from rail.
4	John Oliver	do	32	Milford Haven, Va.	Washington, D. C.	do	Wood	1	Off Bluff Point, Va., Chesapeake Bay.	Fell overboard at night.
6	Gold Dust	Am. str.	43	The Dalles, Oreg.	Cascades, Oreg.	do	Ballast	1	The Dalles, Columbia River, Oreg.	Fell overboard.
11	Ruth Robinson	Am. schr.	497	At anchor in Charleston Harbor, S. C.	do	do	do	1	Charleston Harbor, S. C.	Fell overboard from sheer pole.
12	Victor	do	71	Cape Canso, N. S.	Western Banks, N. F.	do	Fish	1	Western Banks, N. F.	Dory capsized; man carried off by shark.
15	Garland	do	35	Tappahannock, Va.	Baltimore, Md.	do	Unknown	1	Off mouth of Rappahannock River, Va.	Fell overboard.
16	Hattie	Am. str.	177	New Orleans, La.	Algiers, La.	do	Ballast	1	New Orleans, La., Mississippi River.	Fell overboard while getting a bucket of water.
18	Pope Catlin	do	165	Baltimore, Md.	Choptank River, Md.	do	Unknown	1	Mouth of Choptank River, Md.	Fell overboard.
20	Reindeer	Am. bark	357	New Bedford, Mass.	Whaling	do	Sperm oil	1	North of Azores Islands.	Drowned while fast to a whale, being taken down by the line.

20	Mendota.....	Am. bark.....	513	Bath, Mo.....	Savannah, Ga.....	do.....	Unknown.....	1	At sea.....	Fell from aloft.
26	A. R. Ward.....	Am. str.....	81	In Chicago Harbor, Ill.	.....	Partial	Ballast.....	2	Chicago, Ill.....	Explosion of boiler
23	Anna Barton.....	Am. schr.....	224	Jacksonville, Fla.....	New York City.....	No damage.	Unknown.....	1	At sea.....	Lost overboard in a squall.
22	Starlight.....	Am. brig.....	141	Rangor, Mo.....	Turk's Island, Bahamas.	do.....	Lumber, bricks, and hay.	1	Lat 24° 10' N, long. 79° W.	Knocked overboard while reefing mainsail.
23	Rachel A. Collins.....	Am. schr.....	133	Philadelphia, Pa.....	New Bern, N. C.....	do.....	Coal.....	2	Ten miles west of Hatteras Beach, N. C.	from boat other while attempting to rescue the former.
26	George R. Congdon.....	do.....	458	Georgetown, S. C.....	New York City.....	Partial	Naval stores.....	1	Off Charleston, S. C.....	Washed overboard in a cyclone.
27	Haunah M. Lollis.....	do.....	290	Jacksonville, Fla.....	do.....	do.....	Lumber.....	2	At sea.....	Lost in a hurricane.
27	Jane Hope.....	Am. sloop.....	13	Charleston, S. C.....	Cainboy, S. C.....	do.....	Ballast.....	1	Charleston Harbor, S. C.	Capitulated in a squall.
28	Clara.....	Am. str.....	74	New York City.....	Pleasure excursion.	No damage.	Unknown.....	1	Rockland, Hudson River	Fell overboard.
Sept. 1	Glenwood.....	Am. schr.....	143	do.....	Mayport, Fla.....	Total	Stone.....	6	At sea.....	Missing.
	Elizabeth.....	Am. str.....	404	At anchor in Baltimore Harbor, Md.	.....	No damage.	Unknown.....	1	Baltimore Harbor, Md.	Fell overboard while drunk.
2	Genoa.....	Am. schr.....	731	Marquette, Mich.....	Cleveland, Ohio.....	do.....	Iron ore.....	1	Off Detroit, Mich., Lake Huron.	Fell overboard from forward chains.
4	Nellie.....	Am. scow.....	8	Holland, Mich.....	Charlevoix, Mich.....	Partial	Fruit and vegetables.	2	Muskegon, Mich., Lake Michigan.	Capitulated.
6	Josephine.....	Am. str.....	240	Saint Louis, Mo.....	Saint Paul, Minn.....	No damage.	Ballast.....	1	La Crosse, Wis., Mississippi River.	Accidentally walked overboard from barge in tow of steamer.
8	Levi Grant.....	Am. schr.....	206	Chicago, Ill.....	Muskegon, Mich.....	do.....	do.....	1	Chicago, Ill., Lake Michigan.	Fell overboard from rail.
8	Pathfinder.....	do.....	635	Fairport, Ohio.....	Chicago, Ill.....	do.....	Coal.....	1	Off Cleveland, Ohio, Lake Erie.	Fell overboard from miszen boom.
9	Silas E. Evans.....	do.....	281	Fernandina, Fla.....	New York City.....	Partial	Naval stores.....	2	Lat. 32° 47' N, long. 77° 17' W.	Lost in a hurricane.
14	Harriet.....	Am. str.....	94	San Francisco, Cal.....	Colusa, Cal.....	No damage.	Ballast.....	1	Near Tremont Bar, Sacramento River, Cal.	Knocked overboard while reaching for tow-lines.
17	Landseer.....	Am. ship.....	1,413	Yokohama, Japan.....	San Francisco, Cal.....	do.....	do.....	1	At sea.....	Fell into hold.
23	J. B. Taylor.....	Am. schr.....	45	Baltimore, Md.....	Riverton, Md.....	No damage.	Unknown.....	1	Baltimore Harbor, Md.	Fell overboard in a fit.
26	Unadilla.....	do.....	306	Detroit, Mich.....	Beconaba, Mich.....	do.....	Ballast.....	1	Near Fortymille Point, Lake Huron.	Fell overboard from bowsprit.
29	Anna Camp.....	Am. ship.....	1,252	Iloilo, Philippines Islands.	New York City.....	do.....	Unknown.....	1	At sea.....	Lost overboard.
Oct. 2	Sunshine.....	Am. schr.....	390	Bay City, Mich.....	Cleveland, Ohio.....	do.....	Lumber.....	1	Off Little's Point, Lake Erie.	Lost overboard at night.
4	City of Stockton.....	Am. str.....	486	Stockton, Cal.....	San Francisco, Cal.....	do.....	Wheat and produce.	1	Antioch, Suisun Bay, Cal.	Fell overboard.
5	Catawamuck.....	Am. schr.....	110	Rockland, Me.....	Richmond, Va.....	Partial	Lime.....	2	35 miles south of Monhegan Island, Me.	Reported as having died of fright, cargo of lime being on fire.

TABLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.—Continued.*

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tonnage.	Port sailed from.	Port bound to.	Whether result of partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.	Nature of casualty.
1891. Oct. 5	Morgan City.....	Am. steam-ship.	2,271	New York City	New Orleans, La.	Partial.	Unknown	1	At sea	Jumped overboard; reason unknown.
5	International.....	Am. str.	74	In New York Harbor, N. Y.	.....	do	do	1	Brooklyn, N. Y.	Separating of steam-pipe from throttle-valve
5	Ada V. Crosby ..	Am. bktnr.	500	Philadelphia, Pa.	Portland, Me	Total	Coal	1	Lat. 37° 30' N., long. 73° 20' W.	Died at sea in an open boat three days after the vessel was abandoned
6	Seaweed ..	Am. str.	26	At anchor at Beaufort, S. C.	.....	No damage.	Unknown	1	Beaufort River, S. C.	Jumped overboard to escape dingy.
8	Flora King	Am. schr.	118	Caldia, Me	Providence, R. I.	do	Lumber.	1	Off West Quoddy Head, Me.	Knocked overboard by foresheet.
9	David Dow	do	1,419	Buffalo, N. Y.	Chicago, Ill	do	Salt	1	Off Point aux Barques, Lake Huron.	Fell overboard from top-sail yard at night.
10	Anastasia	do	37	San Francisco, Cal	Seal Island	do	Ballast	1	Near Aleutian Island, Cal	Fell overboard while drunk.
11	C. H. Merrithew ..	do	89	Palace Bay, Cal	San Francisco, Cal.	do	Railroad ties.	1	Palace Bay, Cal.	Capsizing of small boat.
11	B. W. Bramble	do	45	In Baltimore Harbor, Md.	.....	do	Unknown	1	Baltimore Harbor, Md	Fell overboard while jumping from schooner to rawl.
11	J. A. Holmes.....	do	132	Chicago, Ill	Manistee, Mich.	do	Ballast.	1	Lake Michigan	Fell overboard from main cross-tree.
13	Acorn	Am. bktnr.	316	Alpena, Mich.	Toledo, Ohio	do	Railroad ties.	1	Off Sturgeon Point, Lake Huron	Fell overboard.
13	Diamond Jo	Am. str.	242	Dubuque, Iowa	Saint Paul, Minn.	do	Unknown	1	Head of Coon Slough,	Do
16	Havana.....	do	885	West Point, Va.	Baltimore, Md	do	do	1	Black Walnut Cove, Chesapeake Bay.	Fell overboard while drunk.
18	Mary A. Kirwan..	Am. schr.	39	In Baltimore Harbor, Md.	.....	do	do	1	Chesapeake Bay.	Jumped from small boat to prevent arrest for stealing.
15	Lumborman	Am. str.	78	Hannibal, Mo.	La Crosse, Wis	do	Ballast	1	Near Keithsburg, Ill., Mississippi River.	Fell overboard.
16	Cornellia	Am. schr.	62	White Haven, Md	Yorktown, Va	do	do	1	Chesapeake Bay	Walked or fell overboard.
17	Crescent City ..	Am. steam-ship.	2,003	At anchor in New York Harbor, N. Y.	.....	do	do	1	New York Harbor, N. Y.	Carried on dry dock.

20	City of New Baldmore.	Am. str.	80	Detroit, Mich.	Marine City, Mich.	do	General merchandise.	1	Lake St. Clair	Fell overboard (supposed in a fit).
21	Libbie Nan	Am. schr.	222	Chicago, Ill.	Sturgeon Bay, Wis.	do	Ballast	1	Off Grosse Pointe, Ill., Lake Michigan.	Lost overboard.
22	Condor	do	31	Ludington, Mich.	Racine, Wis.	do	Lumber	1		Fell overboard while jibing foresail.
25	Thomas W. Moore	do	31	Baltimore, Md.	Potomac River	do	Oysters	1		Thrown overboard by yawl breaking loose.
25	Maggie Sanborn	Am. str.	21	In Cleveland Harbor, Ohio.		do	Ballast	1	Cleveland, Ohio, Lake Erie.	Fell overboard
27	Hamilton Fish	Am. ship	1,623	Antwerp, Belgium.	New York City	do	Unknown	1	At sea	do
29	Victoria	Am. steamship.	1,463	Nanaimo, Br. Col.	San Francisco, Cal.	do	Coal and general merchandise	1	Thirty miles south of Cape Blanco	do
30	M. E. Higgins	Am. sch.	94	New London, Conn.	Cape Horn, S. A.	do	Unknown	1	Near Terra-Del-Fuego, S. A.	Washed overboard in a gale.
Nov. 4	Transit	Am. ship	1,133	Liverpool, Eng.	New York City	Total	General	17	At sea	Missing.
4	Richard Morrell	Am. sch.	41	Greenwich, Conn.	do	Partial.	Stone	1		Capsized in a squall
4	Oxford	do	53	Baltimore, Md.	Oysterling	do	Unknown	1		Knocked overboard by mainboom.
4	Leonora	Am. brig	459	Bath, Me.	Baltimore, Md.	do	do	1	Off Nantucket, Mass.	Fell from upper topsail
7	Samuel H. Foster	Am. sch.	729	Kacanaba, Mich.	Cleveland, Ohio	do	Iron ore	1	Near Port Austin, Lake Huron.	d from stowing
10	Carrie V. Roach	do	44	Potomac River	Baltimore, Md.	do	Unknown	1	Below Fort Carroll, Patuxent River.	Fell overboard while asleep.
11	Plymouth Rock	do	97	Gloucester, Mass.	Fishing	do	Fish	1	Southeast part of Grand Bank.	Capsizing of dory.
11	New York	Am. steamship.	2,284			do	Unknown	1	Off Frying-Pan Shoals, N. C.	Jibing of mainboom.
11	Constantine	Am. ship	1,280	New York City	London, Eng.	Total	Refined oil	21	At sea	Missing
12	Hoogly	do	1,156	Hong Kong, China	New York City	do	Unknown	1	Straits of Sunda, E. I.	Struck by lightning while aloft.
13	J. O. Moss	Am. sch.	119	Lying at South Chicago, Ill.		do	Ballast	1	Chicago, Ill.	Fell into hold while drunk.
14	Lehigh	Am. str.	16	New York City	Glen Island, N. Y.	Total	do	1	Glen Island, Long Island Sound, N. Y.	Explosion of boiler.
17	Mechanoney	Am. barge	280	do	Baltimore, Md.	do	Unknown	1	Bordentown, N. J., Delaware River.	Fell overboard.
18	Nellie Hammond	Am. sch.	43	Northport, Mich.	Milwaukee, Wis.	do	Wood	1	Fourteen miles south of Manitowoc, Wis., Lake Michigan	Do.
18	Wachusett	do	79	Gloucester, Mass.	Fishing	do	Unknown	1	At sea	Capsizing of dory while attending trawls.
19	Galatea	Am. ship	339	Hamburg, Germany.	Norfolk, Va.	do	do	1	do	Washed overboard from main lower channels.
20	Newport	Am. str.	2,735	New York City	Havana, Cuba.	do	do	1	do	Lost overboard.
22	Oscar Townsend	do	1,037	Cleveland, Ohio	Escanaba, Mich.	do	Coal	1	Straits of Mackinac	Slipped overboard.

TABLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.—Continued.*

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result or partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.	Nature of casualty.
1881.										
Nov. 22	Emily and Jenny.	Am. sch.	345	Philadelphia, Pa.	Washington, D. C.	No damage.	Coal.	1	Off Smith's Point, Chesapeake Bay.	Knocked overboard while tacking ship. Lost overboard.
23	Amelia.	Am. bark.	675	New London, Eng.	New York City	do.	Iron and barrels.	1	At sea.	
24	Jarvis Lord.	Am. steamship.	771	Amherstburg, Canada.	Buffalo, N. Y.	do.	Wheat.	1	Off Long Point, Lake Erie, Canada.	Knocked overboard while jibbing foresheet.
25	Nabob.	Am. sch.	34	On dredging.		No damage.	Unknown.	1	Off Parker's Island, Chesapeake Bay.	Struck on back of head by jib-club or block.
25	Herald.	Am. str.	149	Stockton, Cal.	San Francisco, Cal.	do.	Wheat.	1	Off Point Edith, Suisun Bay, Cal.	Lost overboard from barge in tow.
26	Smuggler.	Am. sch.	68	Gloucester, Mass.	Fishing.	do.	Ballast.	1	Off Chatham, Mass.	Capsize of dory while attending trawls.
26	Edmund L. Levy.	Am. str.	51	In New York Harbor, N. Y.		do.	do.	1	New York Harbor, N. Y.	Fell overboard.
26	Carthage.	Am. sch.	66	Gloucester, Mass.	Fishing.	do.	do.	1	Off coast of Maine.	Knocked overboard by main-boom.
26	L. C. Butte.	do.	769	Bay City, Mich.	Milwaukee, Wis.	Partial.	Salt.	1	Twenty-five miles north-west of Manitou Island, Lake Michigan.	Fell overboard while reefing sail.
30	Charles W. Morgan.	Am. bark.	314	New Bedford, Mass.	Whaling cruise.	No damage.	Sperm oil.	1	Off Cape de Verde Island.	Fell overboard.
—	Fannie H. Jennings.	Am. brig.	361	Orchilla Island, Caribbean Sea.	New London, Conn.	do.	Guano.	8	At sea.	Missing.
Dec. 10	Lida.	Am. sch.	10	Baltimore, Md.	Oystering.	No damage.	Ballast.	2	Off Sandy Point, Chesapeake Bay.	Knocked overboard by jibbing of foreboom.
13	Bonita.	Am. str.	489	Port Harford, Cal.	San Diego, Cal.	do.	Railroad ties.	1	Off San Pedro, Cal.	Slipped overboard while ascending ladder to hurricane deck.
13	Isabel.	Am. sloop.	6	Baltimore, Md.	North Point, Patuxent River.	do.	Unknown.	1	Off North Point Creek, Md.	Sinking of sloop's skiff while trying to get unshipped rudder.
21	Effie K. Colbourne.	Am. sch.	39	do.	Tangier Sound, Md.	do.	do.	1	Off North Point, Chesapeake Bay.	Fell overboard while struck.
21	Jennie E. Simmons.	do.	235	Charleston, S. C.	Philadelphia, Pa.	do.	Phosphate rock.	1	Off Frying Pan Shoals, N. C.	Washed overboard.

22	Havana.....	Am. sch	12	Hyde County, N.C.	New Berne, N.C.	do	Corn.....	1	Off New Berne, N. C.....	Knocked overboard while jibing mainsail.
23	Smuggler.....	do	68	Gloucester, Mass.	Fishing.....	do	Ice	4	At sea	Lost in fog while attending trawls in dories.
23	Granger	Am. str	486	Bull's Bay, S. C.	Charleston, S. C.	Total	Cotton and naval stores.	2	Charleston Harbor, S. C	Fire.
23	James W. Lee	Am. sch	21	Albany, N. Y.	New York City.....	Partial	Clams	1	Opposite West Point, Hudson River.	Entangled in main sheet and thrown overboard while jibing main-boom.
24	S. V. W. Simmons.....	do	194	Philadelphia, Pa.	Boston, Mass	No damage.	Coal	1	Delaware Breakwater ..	Knocked overboard.
24	Pioneer.....	Am. str	160	do	York River, Va.....	do	Ballast	1	Off Lynn Haven Bay	Knocked overboard by hawser from vessel in tow.
26	Campanero	Am. sch	25	At anchor off Poplar Island, Chesapeake Bay.	.....	do	Unknown	1	Off Poplar Island, Chesapeake Bay.	Fell from mast-head to deck.
26	Pansy	Light-house steam tender.	330	Galveston, Tex	New Orleans, La.....	do	do	1	Mississippi River.....	Fell overboard.
26	Paris C. Brown	Am. str	904	New Orleans, La.....	Cincinnati, Ohio ..	Partial	Miscellaneous.	3	Above Cat-Fish Tow Head, Mississippi River.	Bursting of steam-pipe.
26	West Point.....	do	624	At anchor at West Point, Va.	.....	Total	General merchandise.	19	West Point, Va., York River.	Fire.
28	George W. Whitford.	Am. sch	191	Martinique, West Indies.	Philadelphia, Pa.....	No damage.	Unknown	1	Lat. 32° 28' N., long. 75° 05' W.	Fell overboard from main-boom.
30	Rosa B	Am. str	166	Monroe, La.	Onachita River, La.	Total	Cotton and sundries.	1	Onachita River, La	Fire.
31	Jennie Cushman ..	Am. bark	288	Gorée, Africa.....	Boston, Mass	No damage.	Unknown	1	Off Minot's Light, Mass	Lost in a gale.
—	Camden	do	527	Port Townsend, Wash. Ter.	Honolulu, Sandwich Islands.	do	Lumber.....	1	Outside Cape Flattery, Wash. Ter.	Lost in a storm.
—	N. M. Haven	do	406	Philadelphia, Pa.....	Portland, Me.	Total	Coal	10	At sea	Missing.
1882.	Etta Gott.....	Am. sch	59	Gloucester, Mass ..	Fishing.....	No damage.	Fish	1	Fourteen miles southeast of Thatcher's Island, Mass.	Fell overboard.
Jan. 1	Richard Robinson.	Am. ship	1,653	New York City	Yokohama, Japan ..	do	Unknown.....	1	Lat. 32° 13' N., long. 44° 37' W.	Fell from aloft to deck.
1	Eugene	Am. sch	126	do	Jacksonville, Fla ..	Partial	General merchandise.	1	Lat. 30° 20' N., long. 75° 10' W.	Explosion of gasoline.
2	Herman Babson	do	101	Gloucester, Mass ..	Fortune Bay, Newfoundland.	No damage.	General.....	1	Off Lewisburg, Cape Breton.....	Washed overboard from jib-boom.
4	Corona	Am. str	584	In New Orleans Harbor, La.	.....	do	Ballast.....	1	New Orleans, La.....	Fell overboard.
6	Grand Tower.....	do	1,058	Saint Louis, Mo.....	Vicksburg, Miss ..	Partial	General merchandise.	4	Near Goose Island, Mississippi River.	Vessel struck snag and sunk.
9	Howard Drake.....	do	166	In Savannah Harbor, Ga.	.....	No damage.	Rosin and turpentine.	1	Savannah, Ga.....	Fell overboard from rail.
14	Fannie	Am. sch	23	Dredging grounds, Baltimore, Md.	.....	do	Oysters.....	1	Chesapeake Bay	Slipped overboard in a gale.

TABLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.—Continued.*

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result or partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.	Nature of casualty.
1882. Jan. 15	Rosa.....	Am. str.....	156	Jacksonville, Fla.	Enterprise, Fla.	No damage.	Unknown.	1	Saint John's River, Fla.	Jumped overboard while insane.
17	M. B. Miller.....	Am. sch.....	336	New York City....	Savannah, Ga.	do.	Guano	1	Off Cape Hatteras, N. C.	Washed from jib-boom by a heavy sea.
17	Caroline.....	do.	20	Baltimore, Md.	Oystering.....	do.	Ballast	1	Chesapeake Bay....	Jumped overboard while drunk.
19	Four Marys.....	do.	21	Dredging near Eastern Bay, Md.	.....	do.	do.	1	do.	Fell overboard; crank handle of dredge came off.
23	H. P. Farrington..	Am. str.....	45	In New York Harbor, N. Y.	.....	Total	do.	3	Haverstraw, Hudson River, N. Y.	Explosion of boiler.
24	Effie A. Chase.....	Am. sch.....	23	Baltimore, Md.	Patuxent River, Md.	No damage.	do.	1	Off Greensbury's Point, Chesapeake Bay, Md.	Fell overboard while overhauling chain.
29	David Clark.....	Am. str.....	481	At anchor at Savannah, Ga.	.....	do.	Unknown	1	Savannah, Ga.	Fell from plank in passing from wharf to steamer while drunk.
31	Nicola.....	Am. sch.....	147	Salem, Mass.	New York City....	do.	Lumber	6	At sea.	Missing.
31	Lida J. Lewis.....	do.	563	Baltimore, Md.	do.	do.	Coal	1	Off Fenwick's Island, Md.	Lost overboard from mizen-boom.
Feb. 4	Jennie Morton....	Am. brigantine.	212	Wilmington, N. C.	Baltimore, Md.	Total	Lumber	2	Lat. 36° 31' N., long. 70° 30' W.	Vessel capsized on February 4, crew remaining on wreck until the 9th, two men dying in the mean time from exposure.
5	Helen J. Holway..	Am. sch.....	223	Machias, Me.	Arroyo, Porto Rico, West Indies.	Partial	do.	1	At sea	Lost in a hurricane.
5	Sarah and Ellen..	do.	542	Portland, Me.	Cardenas, Cuba, West Indies.	do.	Cooperage	1	do.	Lost in a gale.
5	Paul Revere.....	do.	65	Gloucester, Mass.	St. George's Bank.	Total	Fish	14	St. George's Bank.	Missing.
5	Corinna H. Bishop.	do.	82	do.	do.	No damage.	do.	4	Grand Bank	Lost in a gale at night.
5	Edith M. Pew.....	do.	69	Cape Negro, Nova Scotia.	Western Banks, Nova Scotia.	Total	do.	14	At sea	Missing.

	Columbia	Am. ship	1,472	Liverpool, England	New York City	No dam- age.	Unknown	1	Lat. 49° 50' N., long. 29° W.	Washed overboard in a gale.
7	Charles A. Sparks.	Am. brig.	445	Vera Cruz, Mexico	do	do	do	1	Off coast of Mexico	Capsizing of small boat.
16	Martha	Am. str.	175	Port Kada, La.	New Orleans, La.	do	do	1	Fifty miles below New Orleans, La.	Fell overboard.
18	San Rafael	do	682	San Quentin, Cal.	San Francisco, Cal.	do	Ballast	1	Point San Quentin, Cal.	
18	Columbia	Am. ship	1,472	Liverpool, England	New York City	do	Unknown	1	Lat. 49° 30' N., long. 29° W.	Fell overboard from aloft in a gale.
19	Willie L. Newton	Am. sch.	385	Darien, Ga.	do	do	do	1	Fifty miles off Cape Fear, N. C.	Fell overboard from crese- trees.
23	Bertie Claiborne	Am. str.	49	In Vicksburg Harbor, Miss.	Total	Cotton, cotton- seed and hides.	do	4	Vicksburg, Mississippi River.	Fire.
26	Columbus	Am. ship	1,854	Antwerp, Belgium	New York City	No dam- age.	Unknown	1	At sea	Fell overboard from jib- boom.
Mar. 1	Yazoo Valley	Am. str.	329	New Orleans, La.	Shreveport, La.	do	do	1	Fifty miles below Shreve- port, Red River, La.	Knocked overboard by a steer while loading cat- tle.
4	L. and A. Babcock	Am. sch.	265	Philadelphia, Pa.	Lynn, Mass.	do	Coal	2	Off Race Point, Cape Cod, Mass.	Washed overboard by a heavy sea.
5	Virginia	Am. bat'k	749	Anchland, New Zealand.	New York City	do	Unknown	1	At sea	Lost overboard.
10	Orrie V. Dryako	Am. sch.	321	Cardenas, Cuba, West Indies.	do	do	do	1	Sixty miles from Cape Henlopen, Del.	Fell overboard from jib- boom in a gale.
11	Sidney	Am. str.	337	Cincinnati, Ohio	Wheeling, W. Va.	Partial	Iron	12	Near Goose Island, Ohio River.	Bursting of main steam- pipe.
12	Irene E. Meservey	Am. sch.	244	Darien, Ga.	Baltimore, Md.	No dam- age.	Lumber	1	Lat. 32° 48' N., long. 77° 25' W.	Knocked overboard by foreboom.
13	Gen. U. S. Grant	do	40	Baltimore, Md.	Choptank River, Md.	do	Unknown	1	Off Tally's Point, Ches- apeake Bay, Md.	while
14	C. H. Macomber	do	120	Boston, Mass.	Jacksonville, Fla.	do	Phosphate	1	Off Frying Pan Shoals, N. C.	on mast.
15	Hattie	Ferry-boat	177	New Orleans, La.	Algiers, La.	do	Ballast	1	Algiers, La., Mississippi River.	Crushed between wharf and ferry-boat.
15	Etna	Am. str.	245	Coalburgh, W. Va.	Cincinnati, Ohio	Partial	do	2	Great Kanawha River.	Explosion of boiler.
15	Fannie Sance	Am. sloop	18	San Francisco, Cal.	Sacramento River, Cal.	No dam- age.	do	1		Knocked overboard by swinging of main-boom.
17	Northerner	Am. sch.	65	Gloucester, Mass.	St. George's Bank	Total	Fish	13		Missing.
17	Victor	do	71	do	do	do	do	13		Do.
18	Agnes	do	50	Russum, Md.	Baltimore, Md.	No dam- age.	Wood and grain.	1	Baltimore Harbor, Md.	Knocked overboard by jibbing of foreboom.
18	Hazard	Am. sch.	16	Rock Creek, Md.	Baltimore, Md.	No dam- age.	Oysters	1	Mouth of Rock Creek, Chesapeake Bay	Fell overboard.
21	Leslie B.	Am. str.	118	Jefferson, Tex.	Shreveport, La.	Total	Cotton, hides, and wood.	1	Big Cypress Bayou, Tex.	Fire.
22	Cosetti	do	36	Loraburg, Fla.	Fort Mason, Fla.	Partial	Fruit	1	Oaklawaha River, Fla.	Collapse of boiler.
23	George W. Ander- son.	Am. sch.	234	Jacksonville, Fla.	New York City	No dam- age.	Unknown	1	At sea	Lost overboard in a gale.
23	Henry C. Pratt	Am. str.	27	Towing on Dela- ware River.		Total	Ballast	5	Philadelphia, Pa.	Explosion of boiler.

TABLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.*—Continued.

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result or partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.	Nature of casualty.
1882.										
Mar. 26	Andrew K. Shriver.	Am. sch.	36	Potomac River.	Baltimore, Md.	Not damaged.	Oysters.	1	Off Poplar Island, Chesapeake Bay.	Knocked overboard by fore boom at night.
26	Col. J. H. French.	do	83	Gloucester, Mass.	Fishing.	do	Ballast.	1	Off Fire Island, N. Y.	Fell overboard from jib boom.
27	Annie and Lily.	Am. brig.	291	Cienfuegos, W. I.	Boston, Mass.	do	Unknown.	1	At sea.	Fell overboard while securing anchor.
29	Libbie Conger.	Am. str.	324	Dubuque, Iowa.	Saint Louis, Mo.	do	do	1	Mississippi River.	Fell overboard.
30	Golden City.	do	892	New Orleans, La.	Cincinnati, Ohio.	Total.	Cotton-seed oil, rope, and junk.	20	Near Memphis, Tenn., Mississippi River.	Fire.
Apr. 2	John Tway.	Am. sch.	158	Baltimore, Md.	Western Branch, Va.	Not damaged.	Barrels and oystershells.	2	Chesapeake Bay.	Capsizing of small boat.
4	Four Brothers.	do	21	do	Northeast River, Md.	do	Unknown.	1	Off Miller's Island, Chesapeake Bay.	Fell overboard while drunk.
7	Bella Mac.	Am. str.	108	La Crosse, Wis.	Lyons, Iowa.	Partial.	Ballast.	9	Above Brownsville, Wis., Mississippi River.	Explosion of boiler.
9	Lucy.	British fish boat.	5	Bayfield, Canada.	Cockburn, Island.	Not damaged.	do	1	Lake Huron.	Boat capsized, man struck on head by mainmast.
9	Waleska.	Am. sch.	71	Muskegon, Mich.	Sheboygan, Wis.	do	Lumber.	1	Sheboygan, Wis.	Slipped overboard while rolling up mainsail.
10	Frank Atwood.	do	107	San Blas, Fla.	New York City.	do	Ballast.	1	At sea.	Washed overboard in a gale.
13	Planter.	Am. str.	384	Charleston, S. C.	Georgetown, S. C.	Partial.	Assorted.	3	Charleston Harbor, S. C.	Rupture of boiler.
18	Ella.	Am. bark.	655	Iquique, Peru.	Delaware Breakwater.	Not damaged.	Nitrate.	1	Off coast of Delaware.	Fell from aloft to deck.
21	Lizzie Marshall.	do	454	Guaymas, Mexico.	Port Townsend, Wash. Ter.	do	Ballast.	1	Off Cape Flattery, Wash. Ter.	Do.
22	Belle Brown.	Am. sch.	218	Ogontz Bay, Mich.	Chicago, Ill.	do	Posts and poles.	1	Lake Michigan.	Fell overboard while asleep.
23	Little Amy.	do	9	At anchor in Potomac River.	do	do	Unknown.	1	Port Tobacco, Va., Potomac River.	Capsizing of small boat.
23	Celina.	Am. bark.	577	Buenos Ayres, S. A.	Boston, Mass.	do	Merchandise.	1	Off Cape Hatteras, N. C.	Fell overboard from upper topsail yard while loose.
23	Little Eagle.	Am. str.	100	La Crosse, Wis.	Hannibal, Mo.	Total.	Miscellaneous.	3	Hannibal Bridge, Mississippi River.	Fouling of lines.
24	City of Sanford.	do	145	Palatka, Fla.	Jacksonville, Fla.	do	Vegetables.	9	Saint John's River, Fla.	Fire.

No.	Name	Type	Tonnage	Origin	Destination	Condition	Cause
26	Morgan City	Am. str.	2,279	New York City	New Orleans, La.	No dam- age.	Fell overboard.
27	John Gates	do	673	Lewiston, Idaho Terr.	Riparia, W. T.	Wheat and flour.	Knocked overboard by pile of wheat falling against him. Explosion of boiler.
28	Marion	do	149	Georgetown, S. C.	Wateree River, S. C.	Total	Fell overboard while reef- ing mainsail.
29	Page	Am. sch.	110	San Francisco, Cal.	Fishing	No dam- age.	Washed overboard by a heavy sea.
30	Jamies A Brown	do	173	New York City	St. Pierre, Marti- nique, W. I.	do	Fell from foremast-head to deck.
May 4	Charley Woolsey	do	208	Barren Island, N. Y.	Baltimore, Md.	do	Tow-post pulled out strik-
6	Bay City	Tow barge	306	Buffalo, N. Y.	An Sabie, Mich.	Partial	ing.
14	B. F. Watson	Am. bark	903	Havre, France	New York City	No dam- age.	jib- e.
18	American Eagle	Am. sch.	161	Sandusky, Ohio	Put-in-Bay, Ohio	Partial	
18	M. S. Thanbouser	Am. str.	134	Evansville, Ind.	Paducah, Ky.	Total	Aaleop when vessel struck log and sunk. Lost overboard.
19	Isaac Reed	Am. ship	1,551	Liverpool, Eng- land.	San Francisco, Cal.	No dam- age.	
20	Jessie	Am. str.	139	Saint Louis, Mo.	Dubuque, Iowa	do	Fell overboard while landing.
24	Howard	Am. sch.	125	San Diego, Cal.	Navarro River, Cal.	do	Lost overboard.
25	Sailor Boy	do	76	Frankfort, Mich.	Milwaukee, Wis.	do	Knocked overboard by jibbing of main-boom.
25	Shawnee	do	58	Detroit, Mich.	Marquette, Mich.	do	Capetan bar clipped and throw man overboard.
30	William Wiler	do	248	At anchor in Jack- sonville Harbor, Fla.	.....	do	Fell overboard.
30	Arrow	Am. str.	174	Jacksonville, Fla.	Sanford	do	Do.
June 1	E. M. Peck	do	86	Sault St. Marie, Mich.	Saint Mary's River	General mer- chandise.	Capsize of small boat.
3	Industry	Am. sch.	30	Saint Joseph, Mich.	Muskegon, Mich.	Ballast	Capsize in a gale.
4	City of Rome	Am. str.	1,906	Buffalo, N. Y.	Milwaukee, Wis.	Coal	Washed overboard while fixing port cover
5	Potter	Am. sleep	10	Anne Arundel County, Md.	Baltimore, Md.	Unknown	Thrown overboard while jibbing main-sheets.
5	E. Ann Hooper	Am. sch.	167	Virginia	New York City	do	Knocked overboard by main-boom.
5	Joeco	Scow	220	Put-in-Bay, Ohio	Sandusky, Ohio	Ice	Fell overboard.
6	Evansville	Am. str.	194	Evansville, Ind.	Bowling Green, Ky.	Miscellaneous.	Plue collapsed.

TABLE 63.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.*—Continued.

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result or partial loss.	Nature of cargo.	No. of lives lost.	Place of disaster.	Nature of casualty.
1882. June 11	John Martin.....	Am. sch.....	983	Cleveland, Ohio....	Marquette, Mich....	No damage.	Ballast.....	1	Point aux Barques, Mich	Fell from mast-head.
16	Massasoit.....	.....do.....	74	Gloucester, Mass..	Grand Bank.....	Total ..	.....do.....	5	Twenty-five miles south of Cape Broyle, N. F.	Struck iceberg.
17	D. M. Anthony.....	.....do.....	556	Providence, R. I. .	Philadelphia, Pa. .	No damage.	.....do.....	1	Near Dutch Island, R. I.	Fell overboard.
19	No name.....	Flatboat.....	.....	Louisville, Ky.....	On pleasure trip....	.....do.....	.....do.....	1	Louisville, Ky.....	Capsized.
26	St. George.....	Am. sch.....	15	Galveston, Tex.....	Cedar Bayou, Tex....	.....do.....	.....do.....	1	Galveston Bay, Tex.....	Thrown overboard by jib-ing of main-sheet.
26	Corredor.....	.....do.....	47	York River, Va.....	Philadelphia, Pa.....	.....do.....	Wood.....	1	Near Delaware City, Delaware Bay.	Fell overboard while jumping into yawl.
26	Annie M. Allen.....	.....do.....	451	Providence, R. I. .	.....do.....	.....do.....	Ballast.....	1	Philadelphia, Pa.....	Fell overboard while lowering small-boat.
30	George Lewis.....	.....do.....	28	Baltimore, Md.....	Wicomico River, Va.	.....do.....	Unknown.....	1	Near Cove Point, Chesapeake Bay.	Fell overboard.

Totals: Vessels, 233; tonnage, 89,123: total losses, 27; partial losses, 23; no damage, 183; lives lost, 466.

TABLE 64.—*Summary of Wrecks and Casualties on or near the Coasts and on the Rivers of the United States, and at Sea or in Foreign Waters, during the year ending June 30, 1882, involving loss of life.*

Nature of casualties.	Number of vessels.	Tonnage.	Total loss.	Partial loss.	No damage to vessels.	Number of lives lost.
Foundering.....	27	8,077	25	2	.....	145
Strandings.....	15	9,543	11	3	1	54
Vessels collided.....	28	8,598	10	3	7	36
Other causes.....	233	89,123	27	23	183	466
Total.....	293	110,341	73	31	191	703

NOTE.—In this table are included 209 lives lost in cases where no damage was sustained by the vessel or cargo meeting with such casualty; for example, seamen lost overboard in gales; falling from mast and rigging; knocked overboard by sails and spars; drowned by upsetting of small boats; killed by explosion of boilers and bursting of steam-pipes, &c. Shown in Table 63.

TABLE 65.—*List of places on the Coasts of the United States where vessels have Stranded during the last ten years.*

ATLANTIC AND GULF COASTS.*

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Absecon, N. J.....			3	2				5			10
Alden Rock, Portland, Me.....				1		1					2
Allen Island, Penobscot Bay, Me.....			1								1
Amagansett, Long Island.....								2			2
Amazeen Island, N. H.....			1								1
Anastasia Island, Fla.....		1	1								2
Anchorage Island, Little Egg Harbor, N. J.....								2	1		3
Annisquam Light (½ mile east of), Mass.....					1						1
Aransas Pass, Tex.....		1		1	1	1		1		1	4
Asbury Beach, N. J.....						1					1
Ash Island, Muscle Ridge Channel, Me.....						1					1
Ash Island Point, Me.....								1			1
Ash Point, Lark Ledges, Me.....								1			1
Ashley River (mouth of), S. C.....										2	2
Assateague Island, Va.....				1		2				3	6
Assawoman Inlet, Va.....		1								1	2
Atlantic City, N. J.....					1			2	4		4
Atlanticville, N. J.....								1			1
Avery's Ledge, Mass.....		1			1				2		4
Back River Shoals, Chesapeake Bay.....						1		3			4
Badger's Island, Portsmouth Harbor, N. H.....									2	1	3
Baker's Island Bar, Mount Desert, Me.....				2				1		2	5
Baker's Island Shoals, Mass.....								1			1
Bald Rock, Frenchman's Bay, Me.....									1		1
Bang's Island, Me.....	1			1							2
Bantam Ledge, Penobscot Bay, Me.....						1	2		1		4
Barrancas, Fla.....									1		1
Barnegat, N. J.....		3	2	3	2	1	3	2	6	1	22
Barnegat Light (4 miles south of), N. J.....					1						1
Barnegat Light (5 miles south of), N. J.....					1			2			3
Bar Harbor, Mount Desert, Me.....					1						1
Barren Island, N. Y.....									1		1
Barrett's Point, N. Y.....				1							1
Barter's Island, Southeast Bay, Me.....			1								1
Bartlett's Reef, Conn.....		1				2	2				5
Basin Harbor Bar, Me.....										1	1
Basin Island, Cape Porpoise, Me.....				2							2
Basin Rip (off Sankaty Head), Mass.....									1		1
Basin River Breakwater, Cape Cod, Mass.....					1						1
Bating Hollow Beach, Long Island.....					1						1
Bayou La Poutche, La.....								1			1
Bayou Reef, South Pass, La.....			1								1

* In a few instances the number of stranded vessels in this table do not agree with those reported in the annual report of the previous year, having been increased by wreck reports received since the publication of the last report.

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Bay View, Cape Ann, Mass.....		1							1		2
Beach Haven, N. J.....				1							1
Beach Island, Penobscot Bay, Me.....		1									1
Beacon Ledge, Portsmouth, N. H.....						2					2
Bear Island, Me.....								1			1
Bearse's Shoal, Cape Cod, Mass.....		1									1
Beaufort, N. C.....			2	1	1			4		1	9
Beaufort, S. C.....		1			1	1					2
Beaver-Tail Point, R. I.....		1	1	1	1					1	5
Bedloe's Island Reef, New York Bay.....							1	1			2
Bedloe's Island (rock 1 mile west of), New York Bay.....									1		1
Beermore Ledge, Cape Ann, Mass.....					1						1
Bemo Ledges, Cape Ann, Mass.....										1	1
Ben Davis Point (shoals near), Delaware Bay, N. J.....										1	1
Berkley Flats, Norfolk, Va.....								4			4
Big Dauphin Island, Mississippi Sound.....									1		1
Billingsgate Shoal, Cape Cod Bay, Mass.....							2				2
Birch Point, Sheepscot River, Me.....							1				1
Birch Point, Weskeag River, Me.....				1							1
Bird Island, Galveston Bar, Tex.....							1				1
Blacayne Bay, Fla.....									1		1
Bishop and Clerk's Shoal, Nantucket Sound, Mass.....			1		2		1				4
Bishop Rock, Narragansett Bay, R. I.....									1		1
Black Head (off), Me.....						1					1
Black Island, Me.....			1								1
Blackbeard Island, Ga.....										1	1
Black Ledge, New London, Conn.....				1	1			1			3
Black Rock Channel, Boston Harbor, Mass.....										1	1
Black Rock, New London, Conn.....				2	2						4
Black Rock, Newburyport, Mass.....							1				1
Black Rock, Rye Beach, N. H.....								1			1
Black Rock, West Quoddy Bay, Me.....									1		1
Black Rocks (York River), Me.....										1	1
Blackwell's Island, N. Y.....		1				1		1		3	6
Block Island, R. I.....	2		4	3	1	4			1	6	21
Block Island (Grove Point), R. I.....								1	1		2
Block Island Breakwater, R. I.....								1		1	2
Block Island (northeast end of), R. I.....							1				1
Block Island (northwest part of), R. I.....							1				1
Block Island (southeast point of), R. I.....						1					1
Block Island (southwest shore of), R. I.....					2		2				4
Block Island (west side), R. I.....							4				4
Block Island (Black Rock), R. I.....										1	1
Block Island (Sandy Point), R. I.....										1	1
Blue Rock, R. I.....							1				1
Bluff Island, Saco Bay, Me.....				1							1
Bodkin Bar, Chesapeake Bay, Md.....		1			1				1		3
Body's Island, N. C.....		1									1
Bogue Inlet, N. C.....					1						1
Bogue Island, N. C.....					1						1
Bolsbubert Island, Me.....			1								1
Bolivar Beach, Tex.....				1					1		2
Bombay Hook, Delaware Bay.....					1	1					2
Bonnet Point, Narragansett Bay, R. I.....									2	1	3
Boon Island, Me.....	1	1						1			3
Boon Island Ledge, Me.....								3			3
Booth Bay, Me.....		1	1			1					3
Boston Bay, Mass.....								1		1	2
Bowdoinham Bar, Me.....							1		1		2
Bower's Bench, Delaware Bay, Del.....						1					1
Brace's Cove, Cape Ann, Mass.....								2			2
Brace's Cove Point, Cape Ann, Mass.....						1					1
Brandywine Shoal, Delaware Bay.....		2	3	1	1		2	2			11
Brantford Reef, Long Island Sound.....					1	1				1	3
Brant Island, Pamlico Sound, N. C.....				1						1	2
Brant Island Shoals, Pamlico Sound, N. C.....										1	1
Brant Point, Cape Cod, Mass.....							1				1
Brazos Bar, Tex.....				1		1	3				5
Brazos de Santiago, Tex.....			4				1		2	2	9
Breaking Ledge, Me.....			1								1
Brenton's Reef, R. I.....	1	1			1		1	2			6
Brewster Breakwater, Mass.....							1				1
Brewster Islands, Boston Harbor, Mass.....							2				2
Bridgehamton Beach, Long Island, N. Y.....				1					1		2

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Clay Head, Block Island Sound							1				1
Cobb's Island, Va					1	1	1			1	4
Cobb's Island (Carter's Shoals), Va				1					2	2	5
Cobb's Island (Williams's Shoals), Va							1	2			3
Cobscook Bay, Me					1						1
Cockspur Island, Ga										1	1
Coffee Island, Ga								1			1
Cohasset Rocks, Mass							1				1
Cold Spring Inlet, N. J	1	2	2	1	6	2	5	2	3		24
Collin's Beach, Delaware Bay, Del							1				1
Common Flats, Cape Cod, Mass		1					4				5
Conanicut Island, R. I	2		1				1				4
Coney Island, N. Y	1				1	1			1	1	5
Copp's Island, Conn			1								1
Corson's Inlet, N. J	1										1
Cottage City, Mass									1		1
Cove Beach, Va								1			1
Cove Harbor, Stamford, Conn								1			1
Cove Point, Chesapeake Bay, Md				1	1						2
Cow Bay, Long Island									1		1
Cow Shoal, Conn						1					1
Cox's Head, Me				1							1
Crab Meadow, Long Island Sound	1									1	2
Crabtree Point, North Haven, Me					1						1
Cranberry Island, Me				2	1	2			3		8
Cranberry Island, Petty Pan Reef, Me				1							1
Crane's Neck Point, Long Island, N. Y						1					1
Craney Island, Hampton Roads, Va								1			1
Cross Island, Machias Bay, Me		2					1		3		6
Crow Shoal, Delaware Bay, Del							2				2
Cuckolds (The), Me		2									2
Cumberland Island, Ga		1									1
Cunningham Spit, Ga										1	1
Currituck Beach, N. C	2	2	1			1					6
Curtis Creek, Chesapeake Bay, Md										1	1
Curtis Island, Conn				1							1
Cushing Island, Casco Bay, Me					1						1
Cutler, Me		1				1		2	4	2	10
Cuttyhunk Island, Mass			2	3	4	2	1	1	1		14
Damiscove Island, Me					1						1
Davis Neck, Mass			2								2
Davis Point, Little Machias Bay, Me									1		1
Deal Beach, N. J				2	1	2	1			1	7
Dearmon Ledge (near Gloucester), Mass					1						1
Decros Point, Tex				1							1
Decros Point (3½ miles east of), Tex								1			1
Deer Island, Boston Harbor, Mass									1		1
Delaware Breakwater, Del		1	2	2	1	2	3	1		1	13
Dennisport, Mass						1		8		1	10
Despair Island, Narragansett Bay					1						1
Devil's Back, Boston Harbor, Mass					1		1	1	1		4
Diamond Shoals, Cape Hatteras, N. C				1		3	2	1	3		10
Dick's Flat, Mass			1								1
Dighton, Mass								1			1
Dimer's Creek, Chesapeake Bay, Va									1		1
Dixie Island, Mobile Bay, Ala								1			1
Dog Island, Fla								1			1
Dogfish Ledges (entrance Cross Island Narrows), Me						1					1
Dow Ledges, Deer Island Thoroughfare, Me								1			1
Doyle's Island, Moos-a-bec Reach, Me										1	1
Dread Ledge, Mass		1									1
Drinkwater Point, Me						1					1
Duck Island, Mass			1			1					2
Duck Rocks, West Penobscot Bay, Me										1	1
Duck Key, Fla					1						1
Duck Ledges, Me			1								1
Dumpling Rock, Buzzard's Bay, Mass				1							1
Dutch Island, R. I		1		2	1	1	3		1	1	10
Duxbury Beach, Mass									1		1
East Chop, Vineyard Haven, Mass			2		1		1	1	1		6
East Dennis, Mass										1	1
Eastern Egg Rock (near Moos-a-bec Light), Me							1				1
Eastern Point, Cape Ann, Mass									1	1	2
East Hampton, Long Island, N. Y								2		1	3
East Orleans, Mass							1		1		2

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
East Sister, The, Portsmouth Harbor, Me.....										1	1
Eaton's Neck, Long Island, N. Y.....		1					3	1	1	1	7
Edgartown Harbor, Mass.....						2	4	1	2		9
Egg Harbor, N. J.....								1			1
Egg Island, Altamaha Sound, Ga.....							1				1
Egg Rock (near Browney Island), Me.....							1				1
Egg Rock (near George's Islands), Me.....										1	1
Eldridge's Shoal, Vineyard Sound, Mass.....				1							1
Elihu's Island, Pawtucket Bay, R. I.....				1							1
Emery's Point, Me.....		1									1
Execution Rocks, Long Island Sound.....								1		1	2
Falkner's Island, Long Island Sound.....				1			1				2
Fall River, Mass.....				3			1				4
Falmouth, Mass.....						1	1				2
False Cape, Va.....			2			1	1	1	1	1	7
Federal Point, N. C.....								1			1
Fenwick's Island, Md.....					1	4	1	1		3	10
Fernandina Bar, Fla.....			1						1	2	4
Fidler's Ledge, Fox Island, Me.....								1			1
Fingers, The, N. C.....								1			1
Fire Island, Long Island, N. Y.....	2	1	2	4			3	1	2	2	17
Fire Island Light (8 miles east of), Long Island, N. Y.....				1		1					2
Fire Island, Penobscot Bay, Me.....				1							1
Fisher's Island, Long Island Sound.....		3	1	1	1	1	1		3	1	12
Fisher's Island Sound (rocks in), Conn.....									1		1
Fisherman's Inlet, Cape Charles, Va.....					1						1
Fisherman's Island, Me.....		1		1			1		1		4
Fishing Creek Shoal, Delaware Bay, N. J.....								1			1
Fishing Island, N. H.....			1								1
Fishing Point, Assateague Island, Va.....							1				1
Fishing Rip, Nantucket Sound, Mass.....										1	1
Five-Mile Beach, N. J.....					1		1				2
Flat Rock, New Haven, Conn.....								1			1
Flatty Creek Bar, Albemarle Sound.....							1				1
Fletcher's Neck, Me.....			1								1
Flynn's Knoll, New York Bay.....										2	2
Florida Reefs.....		1			1	1				4	7
Florida Reefs (Ajax Reef), Fla.....		1									1
Florida Reefs (Alligator Reef), Fla.....									1		1
Florida Reefs (American Shoal), Fla.....		1				2					3
Florida Reefs (Brewster's Reef), Fla.....		1									1
Florida Reefs (Cary'sfort Reef), Fla.....			1					1			2
Florida Reefs (Cayo Costa), Fla.....										1	1
Florida Reefs (Coral Reef), Fla.....	1										1
Florida Reefs (Conch Reef), Fla.....					2						2
Florida Reefs (Crocker's Reef), Fla.....		1									1
Florida Reefs (Davis Shoal), Fla.....			2								2
Florida Reefs (Fowey Rocks), Fla.....						1					1
Florida Reefs (French Reef), Fla.....	1		1				1				3
Florida Reefs (Pelican Reef), Fla.....			1	1				1			3
Florida Reefs (Pickle's Reef), Fla.....					1	2	1				4
Florida Reefs (Pulaski Shoals), Fla.....							1			1	2
Florida Reefs (Sandy Keys), Fla.....						1				1	2
Florida Reefs (Western Dry Rocks), Fla.....					1						1
Flye Island Light-house, Me.....				1							1
Folly Island, Cape Porpoise, Me.....				1							1
Fort Green, R. I.....											1
Fort Island, Me.....		1									1
Fort Macon, N. C.....			1								1
Fort Pickens Point, Fla.....							1				1
Fort Point Rock, Gloucester Harbor, Mass.....					1						1
Foster's Island, Me.....								1			1
Fox Islands, Penobscot Bay, Me.....									2		2
Frost Point, N. H.....									1		1
Frying Pan Shoals, N. C.....						2			1	3	6
Gallup's Island, Boston Harbor, Mass.....			1				1				2
Galveston, Tex.....		2		1	2	2		1	1		9
Galveston Bar, Tex.....								1			1
Galveston Island, Tex.....				3					2		5
Gangway Ledge, Muscle Ridge Channel, Me.....								1			1
Gangway Rock (off Watch Hill), R. I.....				1							1
Gardiner's Island, Long Island Sound.....			1		1	1		5	2		10

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Gardiner's Island (west side), Long Island Sound.....								1			1
Gay Head, Martha's Vineyard, Mass.....					1			1			2
George's Island, Boston Harbor, Mass.....			1		1				1		3
George's Island, Me.....	1							1			2
Georgetown Breakers, S. C.....									2	1	3
Georgetown Harbor, S. C.....	1			2		2				1	6
Gerrish's Island, Portsmouth Harbor, N. H.....				1							1
Gilgo Inlet Bar, Long Island, N. Y.....						1			1		2
Gloucester, Mass.....				4	1	2	2	1	2	3	15
Glover's Rock, Me.....					1						1
Goat Island, Cape Porpoise, Me.....				3		1					4
Goat Island, R. I.....		1									1
Goose Island, Long Island Sound.....				1				1			2
Gooseberry Island, R. I.....								1			1
Goose Rocks, Kennebunk Port, Me.....							1				1
Goshen Reef, Long Island Sound, Conn.....			1	2	1		1				5
Gott's Islands, Me.....										2	2
Gould Island, R. I.....								1			1
Governor's Run, Chesapeake Bay.....								1			1
Graces Rock (Kennebec River), Me.....										1	1
Grand Grozier Shoal, La.....								1			1
Graves, The, Boston Harbor, Mass.....			3								3
Great Cranberry Island, Me.....								1			1
Great Brewster, The, Boston Bay, Mass.....										1	1
Great Egg Harbor, N. J.....		1		1		1	1	1		1	6
Great Fawn Bar, Boston Bay, Mass.....		1			1		1	1			4
Great Island Shoal, Portsmouth, N. H.....					1						1
Great Rock (near Seaconnctt), R. I.....				1							1
Greenbury's Point, Chesapeake Bay, Md.....							1				1
Green Island, Boston Harbor, Mass.....			1								1
Green Island Ledge, Casco Bay, Me.....				1	1						2
Green Island Ledge (4 miles east L. S. S. No. 3), Me.....										1	1
Green Island Reef, Me.....								1			1
Green Island, N. J.....								1			1
Green Run Inlet, Md.....			1		1	1	1				4
Green Run Inlet (3½ miles north of), Md.....									1		1
Greenport, N. Y.....						1					1
Greenwich Point, Conn.....								2			2
Grindstone Ledge, Muscle Ridge Channel, Me.....						1					1
Guilford, Conn.....			1					1			2
Gull Island, The, near Long Island Sound.....									1		1
Gull Rock, Long Island Sound.....		1									1
Gull Rock, Newport Harbor, R. I.....			2								2
Gull Rock, Pamlico Sound, N. C.....					1						1
Gunnison's Cut (¼ mile north of), Fla.....									1		1
Gunning Rocks, Me.....									1		1
Gun Rock, Lubec Narrows, Me.....				1		1					2
Gurnet Point, Mass.....					1					1	2
Hadlock's Point, Me.....								1			1
Half-Tide Rock, New Haven, Conn.....								1			1
Half-Way Rock, Narragansett Bay, R. I.....									1		1
Halibut Point, Cape Ann, Mass.....							2				2
Hampton Bar, Va.....				1	2			1	1	1	6
Hampton Beach, N. H.....						1					1
Handkerchief Shoal, Mass.....			2				1	3		1	7
Harbor Island Bar, N. C.....							1				1
Harding's Ledge, Boston Bay, Mass.....				1				2			3
Harding's Beach, Cape Cod Bay, Mass.....				1							1
Hart Island, Long Island Sound.....		2	1	2	2					1	8
Hart's Bar, Me.....										1	1
Haskell's Island, Me.....				1							1
Hatchett's Point (1 mile west of), Conn.....					1						1
Hatchett's Reef, Long Island Sound, Conn.....							1				1
Hatteras Inlet, N. C.....				2	4	3		3		4	16
Hatteras Inlet (7 miles southwest of), N. C.....									1		1
Hatteras Inlet (8 miles south of), N. C.....										1	1
Hawes' Shoal, Vineyard Sound, Mass.....					1		1		1		3
Hawkins' Point, Chesapeake Bay, Md.....			1								1
Hay Island Ledge, Muscle Ridge Channel, Me.....						1	1			2	4
Head Harbor Island, Me.....		1				1					2
Head Harbor Island, Moos-a-bee Reach, Me.....										1	1
Hedge Fence Shoal, Vineyard Sound, Mass.....			2	1	2	1	1	1			8
Hell Gate, N. Y.....	3	4	6	6	5	3	1	1		6	35
Hell Gate (Flood Rock), N. Y.....									1		1
Hell Gate (Hallet's Point), N. Y.....								1			1

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Hell Gate (Negro Head), N. Y								1		1	2
Hell Gate (North Brother), N. Y										1	1
Hell Gate (Scaly Rock), N. Y									1		1
Hell Gate (Steep Rock), N. Y				1	1						2
Hell Gate (The Gridiron), N. Y										4	4
Hen and Chickens Shoal, Del.						1			1		2
Henry's Point, Castine Harbor, Me								1			1
Hereford Inlet, N. J		3	1	3	1	1			1	1	11
Hereford Light (6 miles northeast of), N. J							1				1
Heron Island Point, Me						1		1			2
Heron Neck (ledge near), Me								1			1
Herring Bay, Chesapeake Bay, Md			2			1					3
Herring Gut, Me					2	1					3
Highlands, N. J			1					1			2
Highland Light, Cape Cod, Mass		1			1						2
High Pine Ledge, Cape Cod Bay, Mass									2		2
Hillaborough Inlet, Fla					1						1
Hill's Point, Chesapeake Bay, Md									1		1
Hill's Point, Va		1						1			2
Hodgdon's Ledge, Me					1						1
Hodgdon's Point, Me							1				1
Hog Island Bar, Muscongus Sound, Me										1	1
Hog Island, Va	3	3		3	2			4		3	18
Hog Island, Narragansett Bay, R. I									1		1
Hog Island Ledge, Seal Harbor, Me							1	1	1		3
Holland Point, Chesapeake Bay, Md					1						1
Holland's Island, Chesapeake Bay, Md							1				1
Holmes' Cove (east point), Me									1		1
Hooker's Island, Chesapeake Bay, Md							1				1
Hooper's Island Ledge, Herring Gut Harbor, Me						1					1
Hope Island, Narragansett Bay, R. I										1	1
Horn Island, Mississippi Sound				1		1			1	1	4
Horn Point, Chesapeake Bay, Va						1					1
Horse-Shoe Reef, Fisher's Island Sound, Conn						1			1		1
Horse-Shoe Shoal, Chesapeake Bay						1					1
Horse-Shoe Shoal, Nantucket Sound, Mass							1				1
Horton's Point, N. Y	1		1								2
House Island, Salem Entrance, Mass									1		1
Hunniwell's Beach, Me										1	1
Hunniwell's Point, Me								1	1		2
Hunting Island, S. C		1			1						2
Huntington Neck, Long Island Sound			1								1
Hyannis, Mass				2	1			3	2		8
Hypocrite Ledge, Me					1		1	1	1		4
Indianola, Tex	1			1							2
Indianola (2 miles west of), Tex				1							1
Indianola (2 miles southwest of), Tex				2							2
Indian Point, Penobscot Bay, Me					1						1
Indian River Inlet, Del.								2	1	1	4
Indian River Inlet (30 miles north of), Fla							1				1
Inlet Point, Long Island, N. Y				1			1				2
Ipswich Bar, Mass		2	4	1		1	1	1	1	1	12
Isaac Shoals, Va								1	2		3
Island Beach, N. J			1					2	1	1	5
Island Ledge, Mass				1							1
Isle au Haut, Penobscot Bay, Me								1			1
Isles of Shoals				2	1			2			5
Jacob's Point, Long Island, N. Y				1							1
Jamaica Island (off Kittery), Me				1							1
James Ledge, R. I				1							1
Jamestown Island, Va								1			1
Jekyll Island, Ga					1					1	2
Jekyll Spit, Ga						1					1
Jerrey's Point, Portsmouth Harbor, N. H		1									1
Jewell's Island Reef, Me					1						1
Joe Flogger Shoal, Delaware Bay			1	1	1			2	1		6
Johnson's Point Reef, Ga							1				1
Jones' Beach, Long Island, N. Y			3			1			1	1	6
Jones' Hill, N. C				1							1
Jonesport, Me	3					1					4
Joshua Rock (mouth of Connecticut River)								2			2
Jupiter Inlet, Fla	1										1
Kedges Straits, Chesapeake Bay, Md									1		1
Kegs, The, Muscongus Bay, Me					1						1
Kelsey's Ledge, Damariscotta River, Me								1			1

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Keansbunkport, Me						1					1
Kent Island, Chesapeake Bay, Md					1	1	1	2		1	6
Key West, Fla				1							1
Key West (18 miles northeast of), Fla						1					1
Key West (18 miles northwest of), Fla						1					1
Key West Harbor, Fla					1		1				2
Key West Island, Fla					1						1
Kill Pond Bar, Mass		1								2	3
King's Beach, Lynn, Mass				2							2
Kinnakeet, N. C.	2			1							3
Kittery (ledge near), Me						1					1
Kittery Point, Me				2							2
Kitty Hawk, N. C.					1						1
Lambert's Cove, Vineyard Sound, Mass				1							1
Lambert's Point, Va								1			1
Lane's Island, Penobscot Bay, Me							1				1
Lancoville, Cape Ann, Mass								1			1
Latimer's Reef, Long Island Sound			1			1					2
Laralette City, N. J.							1				1
Lazy Gut Island, Deer Island Thoroughfare, Me									1		1
Leaming's Beach, N. J.				1							1
Leete's Reef, Conn					1	1					2
Leighton's Point, Pembroke, Me					1						1
Lewes, Del		2		1	3	1	3	2	2		14
L'Homme à Dieu Shoal, Vineyard Sound, Mass		1		2		2		2			7
Libbey Island, Machias Bay, Me				2						1	3
Little Bay, Va								1			1
Little Beach, N. J.		1				1					2
Little Cove Point, Chesapeake Bay, Md						1					1
Little Cranberry Island, Me			1					1	3	1	6
Little Cumberland Islands, Ga		1									1
Little Deer Island, Eggemoggin Beach, Me										1	1
Little Egg Harbor, N. J.		1		4			4	1	1	1	12
Little Gull Island, Long Island Sound				1				1	1		3
Little Inlet, Long Island Sound				1							1
Little Island, Vineyard Haven, Mass		1									1
Little Island, Va								1			1
Little Kinnakeet, N. C.										2	2
Little Mud Thoroughfare, N. J.							1				1
Little River Island, Me				1							1
Little Round Shoal, Mass		1									1
Little Spoon Island, Me					1						1
Lloyd's Neck, Long Island, N. Y.			1		1			1	1	1	5
Lobster Rock, Saco Bay, Me							1				1
Lobster Rocks, Beverley Harbor, Mass					1						1
Lockwood's Folly Inlet, N. C.			1	1				1	2		5
Loggerhead Inlet, N. C.										1	1
Loggerhead Key, Fla						1					1
Londoner, The (near Thatcher's Island), Mass						1					1
Long Beach (5 miles east of Cape Ann Harbor), Mass							1				1
Long Beach, Plymouth, Mass										1	1
Long Beach, Long Island, N. Y.									2		2
Mass	1		1	2	1			7		3	9
Me				1		1		3		1	10
Me									1		1
Me								1			1
Me						1					1
Me										1	1
Me							2				2
Me										1	1
Me					2	1					3
Me								1			1
Me										1	1
Me			1								1
Me		2									2
Lowell's Rocks, Penobscot Bay, Me											1
Lower Hell Gate, Me		1									1
Lowe's Point, Chesapeake Bay, Md							1				1
Ludham's Beach, N. J.					1	1	1				3
Lynn Haven Bay, Va		1			1	1	1			2	7
Machias, Me				1						1	2
Machiasport, Me				2							2

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Machipongo Inlet, Va.					1				1	
Magothy River (mouth of), Chesapeake Bay, Md.										1
Main Inlet Bar (24 miles northeast of), N. C.					1					
Mamaroneck, N. Y.							1			1
Mandeville, Lake Pontchartrain, La.									1	
Manhattan Beach, N. Y.								1		
Manomet Point, Mass.								1		
Manor Hills, The, Long Island, N. Y.					2					
Manfield Lodge, Deer Island Thoroughfare, Me.				1						
Marblehead, Mass.							1			
Marblehead Neck, Mass.				1						
Mare Island, Me.									1	
Mark Island Lodge, Penobscot Bay, Me.	1		1							1
Mark Island, Moose-a-bee Reach, Me.										1
Marsh Bank Bar (off Harwich), Mass.				1						
Marshfield Beach, Boston Bay, Mass.								1	1	1
Marshall's Island, Me.							1			
Martha's Vineyard (south beach), Mass.									1	
Marquesas Key, Fla.		1	1	1	2					1
Masonboro' Inlet, N. C.									1	
Matagorda Bay, Tex.	1	2		7						1
Matagorda Island, Tex.				4		2	1	2	1	3
Matagorda Peninsula, Tex.										2
Matanzas Inlet (mouth of), Fla.								1	1	
Matinicus Island, Me.								1		
Matincock Point, Long Island, N. Y.					1					
Maurice River (near), Delaware Bay, N. J.										1
Mayport Beach, Fla.							2			
Menemsha Blight, Vineyard Sound, Mass.										1
Menunktauck Point, Conn.	1									
Merrimac River (North Breakers), Mass.				1	2	1	1	1		1
Merry Meeting Bay (rocks in), Me.									1	
Merwin's Point, Conn.					1					
Metinic Island, Me.						1	1			
Metompkin Inlet, Va.					1	1				
Mloomit Rip, Mass.	1									
Middle Ground, Boston Harbor, Mass.									2	
Middle Ground, Chesapeake Bay.						1	1	1	2	
Middle Ground, N. C.								1		1
Middle Ground, Vineyard Sound, Mass.									2	
Middle Reef (near Woolsey's Point), Long Island, N. Y.					1					
Milk Island, Mass.		1	1							
Misahun Point, Mass.	1									
Mispillion Light, Del.		1					1			
Mistake Island, Me.			1		1					
Mobile Bay, Ala.						1		1	1	
Mobile Point, Ala.								1		
Molasses Key, Fla.					1					
Monhegan Island, Me.				2						
Monmouth Beach, N. J.					1				1	
Moomy Point, Cape Cod, Mass.				1	2		1	2	1	
Monroe Island, Penobscot Bay, Me.					2			4		
Montauk Point, Long Island, N. Y.						1	1			
Montauk Point (5 miles northwest of), Long Island, N. Y.										1
Moose Island, Booth Bay Harbor, Me.			1							
Moriches, Long Island, N. Y.			1				1			
Morris' Cove, New Haven Harbor, Conn.			1		1					
Morris' Island, S. C.						1				
Mount Desert Island (south coast of), Me.										1
Mount Desert Rock, Me.							1			
Mount Desert (Schooner Head), Me.										1
Muskeget Island, Nantucket Sound, Mass.		1						2	2	
Musquito Inlet, Fla.				1	1	1				2
Musquito Inlet (3 miles north of), Fla.							2			
Musquito Inlet (7 miles north of), Fla.							1			
Musquito Inlet (4 miles south of), Fla.							1			
Musquito Inlet (12 miles south of), Fla.									1	
Musquito Island, Me.			1							
Mustang Island, Tex.		1								1
Myrtle Island, Va.					1					
Nag's Head, N. C.						1	1	1		
Nancy Ledge, Lubec, Me.							1			
Nantasket Beach, Mass.										1
Nantucket Bay, Mass.	2		4			1	1		1	

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Nantucket (west end of), Mass										2	2
Nantucket, Great Point, Mass			1			1	3	1	1		7
Nantucket, Sankaty Light, Mass						1					1
Nantucket Shoal, Mass					1		3	1		6	11
Napatree Point, R. I.				1			2	1		1	5
Napeague, Long Island, N. Y.					1						1
Nappertrice Point, Martha's Vineyard, Mass	1										1
Narragansett Pier, R. I.	1	1				1			1	1	5
Nasharvena Island, Vineyard Sound, Mass					1		1				2
Nash's Island, Me		1								1	2
Nassau Inlet, Fla.		1									1
Nauset Beach, Cape Cod, Mass		9	1	1	3	3					17
Naushon Island, Vineyard Sound, Mass				1		1					2
Negro Island, Saco Bay, Me				1							1
New Bedford Harbor, Mass			1		1		1	1		1	5
Newburyport, Mass		1	1	1			1				4
Newcomb's Hollow, Mass				2							2
New Haven, Conn.			1	1	1				1	1	5
New Inlet, Long Island, N. Y.			1	1	2		3	1			8
New Inlet, N. C.			2		1			1			4
New Inlet, N. J.			1								1
New London, Conn.	2				3		1		2		8
New London (ledge off), Conn									1		1
New Mill Creek, Va									1		1
Newport, R. I.			1		2			1	1	3	8
Newport News, Va					1				1		2
New Topsail Inlet, N. C.										1	1
New River (mouth of), N. C.								1	1		2
New Rochelle Harbor, N. Y.									2		2
Newton's Rock, Narragansett Bay, R. I.										1	1
Nix's Mate, Boston Harbor, Mass					1					1	2
No Man's Land, Mass									2		2
Nonameaset Island, Vineyard Sound, Mass			1								1
Norfolk (near), Va									1		1
Norman's Woe, Entrance Gloucester Harbor, Mass		1									1
North Inlet, S. C.			1								1
North Point, Chesapeake Bay, Va							2				2
Northport, Me.					1						1
Northport Harbor, N. Y.								1			1
North River Bar, N. C.							1	2			3
North Truro, Cape Cod, Mass.							2				2
North West, Long Island, N. Y.								2			2
Norton's Cove (ledge in), Me							1				1
Norton's Island, Seal Harbor, Me.					1						1
Norton's Point, Carver Harbor, Me						1					1
Norton's Shoals, Mass		2									2
Norwalk Islands, Long Island Sound			1						1		2
Noyes Point, R. I.				1	1						2
Oak Rock (off Cape Ann), Mass		1									1
Ocean Beach, N. J.						1	1				2
Ocean City, Md.				1			1			2	4
Ocean Grove, N. J.		1			1	1					3
Ocean View, Va					1		1	2			4
Ocklockonee Bar, Fla									1		1
Ocracoke Inlet, N. C.	1			1	3	1	1	1			8
Odiorne's Point, N. C.					1						1
O'Donnell's Point, Lubec Narrows, Me.							1				1
Old Cilley Ledge, Penobscot Bay, Me			1	1				1			3
Old Currituck Inlet, N. C.								1			1
Old Ferry Point, N. Y.								1			1
Old Field Point Light, Long Island, N. Y.						1					1
Old Man Ledge, Penobscot Bay, Me.			1			1	1				3
Old Point Comfort, Va									1	1	2
Old Prince, The, Cape Porpoise Harbor, Me.							1				1
Old Woman Ledge, Me								1			1
Oregon Inlet, N. C.	3		1	1	1				2		8
Orleans Beach, Cape Cod, Mass					2	2			1		5
Ossabaw Island, Ga								1			1
Outer Diamond Shoal, Cape Hatteras, N. C.								1	1		2
Owl's Head, Me.		1	1								2
Oyster Bay, N. Y.								2			2
Oyster Pond Reef, N. Y.			1								1
Oyster Rock, Wilmington Harbor, N. C.					1						1
Padre Island, Tex.						2			4		6
Palacios Point, Matagorda Bay, Tex						1					1

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Ragged Island, Penobscot Bay, Me				1							1
Ragged Point, Assateague Island, Va						1					1
Ram Island Reef, Long Island Sound					1						1
Ram's Head Ledge, Boston Harbor, Mass			1							1	2
Ravenswood Rock, East River, N. Y									1		1
Ray's Point (near), Me										1	1
Red Fish Bar, Tex					1		2				3
Red Spring Point, Long Island, N. Y				1							1
Reed's Point, Albemarle Sound, N. C									1		1
Rehoboth Beach, Del								1			1
Revenue Point Shoal, Ala			1								1
Rich Inlet, N. C							1		1		2
Richmond's Island, Casco Bay, Me		1		1	1						3
Rigolets, The, La									1		1
Riprap, Hampton Roads, Va					1						1
Robbins' Reef Bay, New York Harbor								1	1		2
Robert's Harbor, Penobscot Bay, Me				1							1
Robinson's Beach (southwest harbor), Me								1			1
Robinson's Hole, Vineyard Sound, Mass						1					1
Rockaway, Long Island, N. Y	1	1			3		1	1	1		8
Rockaway Beach, Long Island, N. Y							1			1	2
Rockaway Shoals, Long Island Sound				1	1				1	1	4
Rock Island Beach, Long Island Sound			1								1
Rockland, Me						1	1	1			3
Rock Point, Chesapeake Bay, Md				1			1				2
Rockport, Mass		1							1		2
Rocky Neck, Gloucester Harbor, Mass							1				1
Rocky Point, Long Island Sound				1		1					2
Rocky Point, Plymouth Bay, Mass		1							1		2
Romer Shoal, N. Y		1	1	3			2	1	4	3	15
Rose Island, R. I							1			1	2
Round Shoal, Quoddy Bay, Me								1	1		2
Royal Shoal (northwest point), N. C									1		1
Rumstick Shoal, Narragansett Bay, R. I										1	1
Rudder Rock, Deer Island Thoroughfare, Me				1							1
Rye Beach, N. H							2		2		4
Rye Ledge, N. H							2				2
Sabine Pass, Tex				1				2	1	1	5
Sachem's Head, Conn							1				1
Saddle Island, Penobscot Bay, Me				1							1
Sag Harbor, Long Island, N. Y								1			1
Sag Harbor (12 miles east of), N. Y									1		1
Saint Augustine, Fla						1					1
Saint Augustine (12 miles north of), Fla								1			1
Saint Augustine Bar, Fla					1		1				2
Saint Andrew's Bay, Fla										1	1
Saint Catharine's Sound, Ga										1	1
Saint George's Island, Chesapeake Bay								1			1
Saint George's Island, Fla	1										1
Saint John's Bar, Fla		3	1		1	2	2	2	1		12
Saint Lucie (10 miles north of), Fla							1				1
Saint Simon's Bar, Ga		1						1			2
Saint Vincent's Island, Fla						1					1
Sakonnet Point, R. I				2			1	3			6
Salem, Mass								1			1
Salt Island Ledge (off Cape Ann), Mass			1								1
Saluria, Tex				2							2
Sand Island, Ala										1	1
Sand Shoal Inlet, Va						1					1
Sandwich, Mass								1			1
Sandy Hook, N. J		4		4	1	3	2	2	2	2	20
Sandy Point, Chesapeake Bay					4						4
Sandy Point, Conn								1			1
San Luis Pass, Tex			4				1		1		6
San Luis Pass (2 miles northeast of), Tex						1					1
San Luis Pass (4 miles west of), Tex							1				1
San Luis Pass (5 miles west of), Tex						1					1
Santa Rosa Island, Fla		1	1		2		2	1	2	1	10
Sapelo Shoals, Ga		1									1
Saquish Point, Mass								1			1
Saybrook Bar, Conn		1	1	1	2	3		3			11
Saybrook Point, Conn							1			1	2
Schoodic Island, Frenchman's Bay, Me						1		1			2
School-ship Rock, Vineyard Haven, Mass							1				1
Scituate, Mass	3		3		2	3	1	2	1	1	16

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Seabright, N. J.					1			2			3
Sea Grove, N. J.				1							1
Seal Cove, Mount Desert, Me.				1							1
Seal Harbor, Muscle Ridge Channel, Me.					1		1				2
Seal Island, Machias, Me.											
Seavey's Island, Portsmouth Harbor, N. H.				1					1		2
Seven Foot Knoll, Chesapeake Bay.											
Seyvern River (mouth of), Md.				1							1
Sewell's Point, Chesapeake Bay, Va.				1							1
Shabbit Island, Me.			1								1
Shallotte Inlet, N. C.					1		1				2
Shark River, N. J.		1									1
Sheep Island Bar, West Penobscot Bay, Me.									1	1	2
Sheepscot River (mouth of), Me.											
Shinnecock, Long Island, N. Y.		1		2	1				2		6
Ship Bottom, Long Beach, N. J.							1				1
Ship Island (shoal off), Miss.										1	1
Ship Shoals, Va.					1						1
Shippan Point Reef, Long Island Sound.		1	1								2
Shively Ledge (off Spruce Head), Me.											
Shore Island, R. I.											
Short Beach (4 mile south L. S. S., No. 28), N. J.							3				3
Shot Islands, Englishman's Bay, Me.										1	1
Shovelful Shoal, Nantucket Sound, Mass.			1	3			2				7
Simonton's Cove, Cape Elizabeth, Me.				1							1
Sinepuxent Neck, Md.	1	1			1	2	1				6
Skiff Shoals, Nantucket Sound, Mass.									1		1
Skinner's Head, Marblehead Harbor, Mass.					1	1					2
Sloop Ledge, Sheepscot Bay, Me.							1				1
Smith's Island, Va.	1			3		1	1	1		1	8
Smith's Island (shoal off), Va.									1		1
Smith's Point, Chesapeake Bay, Va.		1						3	1	1	6
Smith's Point (5 miles northwest of), Chesapeake Bay, Va.										1	1
Smith's Point, Long Island, N. Y.						1	1		1	1	4
Smith's Rock, Long Island Sound.		2									2
Smith's Rock, Scituate Neck, Mass.					1						1
Smithtown Harbor, Long Island, N. Y.					2	1					3
Smithville, N. C.		1									1
Somers Point, N. J.							2				2
South Breaker, off Baker's Island.						2					2
South Chatham, Mass.						1					1
Southern Island (near Saint George), Me.						1					1
South Hampton, Long Island, N. Y.		1	1								2
South Harwich, Mass.								1			1
South Island, Fishing Bank, S. C.								1			1
South Marshfield, Beatie's Island, Me.			1								1
South Norwalk, Conn.									1		1
Southport Bar, Conn.		1			1						2
Southport Island, Me.		3									3
South Saint George, Me.					2						2
Southwest Ledge, New London, Conn.								1			1
Southwest Pass, mouth of Mississippi River, La.					1						1
Sow and Pigs, Vineyard Sound, Mass.		1			1			2	1		5
Spectacle Island, Cumberland Inlet, Ga.					1						1
Spindle Rock, south side Rose Island, R. I.									1		1
Spruce Head Island, Muscle Ridge Channel, Me.										1	1
Spruce Head Island, Penobscot Bay, Me.							1		1		2
Spruce Island, off Machias (south side of), Me.						1					1
Spruce Point, Booth Bay Harbor, Me.					1			1			2
Spruce Point Ledge, Me.		1	1								2
Squam Beach, Mass.											
Squam Beach, N. J.	2	1	2	2	2	1		2	2	1	16
Squash Meadow Shoals, Vineyard Sound, Mass.			2	1						1	4
Sculpnocket Beach, Mass.									1		1
Stage Island, Saco Bay, Me.							1				1
Stanford, Conn.			1					1	2		4
Stanford (sunken ledge off), Conn.							1				1
Stanley's Point, Me.								1			1
Staten Island, N. Y.			1	1	1				1		4
Stingray Point, Chesapeake Bay, Va.				2							2
Stirrup Key, Fla.						1					1
Stone Beacon Ledge, Portsmouth Harbor, N. H.					1						1
Stone Horse Shoal, Nantucket Sound, Mass.				1	1	1		1			4
Stone Horse Shoal (near Tybee Island), Ga.				2							2

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Stonington Harbor (Academy Ground), Conn				1							1
Stono Inlet, S. C				2			1				3
Stony Point, Cape Poge, Mass					1					1	2
Straitsmouth Island, Mass							1				1
Stratford Shoals, Conn		1			1						2
Straw's Point (ledge near), N. H							1				1
Success Rock, Long Island Sound										1	1
Sugar Loaf (mouth of Kennebec River), Me								1			1
Sugar Reef, R. I									2		2
Swampscott, Mass				2							2
Swan Point, Chesapeake Bay						1					1
Sweet's Island, Sheepscott River (mouth of), Me						1					1
Tally's Point, Chesapeake Bay, Md						1					1
Tampa, Fla	1					1					2
Tampa Bay (rocks near), Fla										1	1
Tampa Bay (30 miles south of entrance), Fla										1	1
Tanner's Point, Long Island, N. Y						1					1
Tarpaulin Cove, Vineyard Sound, Mass		1	3				1	1			6
Taylor's Island, Chesapeake Bay, Md							1	1			2
Tennant's Harbor, Me						1					1
Ten-Pound Island, Gloucester Harbor, Mass		1		2				1		1	5
Terry Ledge (off White Head Light), Me				1							1
Thatcher's Island, Mass				3	2			1			6
Thimble, The, Long Island Sound			2				1	1			4
Thompson's Ledge, Cranberry Island, Me								1			1
Three Sisters, Chesapeake Bay				1						1	2
Three Tree Island, Me			1								1
Throg's Point (rock near), Long Island Sound							1				1
Thurlow's Island, Deer Island Thoroughfare, Me										1	1
Tiger Island, Ga							1				1
Tilghman's Island, Chesapeake Bay, Md							1				1
Timbalier Island, La						1		1			2
Tiverton, R. I						1	1				2
Toddy's Rocks, Boston Harbor, Mass				1				1		1	3
Tom Moore's Rocks, Mass							1				1
Tom Never's Head, Nantucket Sound, Mass							1				1
Tom's River, N. J							1				1
Tom's Rock (off Kennebec River), Me										1	1
Too's Point, Chesapeake Bay, Va		1	1								2
Tortugas, Fla				1	2		1				4
Townsend's Inlet, N. J		1	4	2			2	2		2	13
Truro, Mass	1		1		1	1			2		6
Tucker's Beach, N. J	1	1							1	1	4
Tuckernuck Shoals, Nantucket Sound, Mass			2		2	1	2	1	1		9
Turner's Shoal, Assateague, Va		1					1				2
Turtle Gut Inlet, N. J	1				1	1			1		4
Tybee Island, Ga			2			1			1		4
Vancoek Shoals, Tex			1								1
Vineyard Haven, Mass	2	1	6	3		4	12	6	3	2	39
Wading River, Long Island, N. Y								1			1
Wallop's Beach, Va										1	1
Warren's Cove, Mass							1				1
Wasque Bluff, Martha's Vineyard, Mass										1	1
Watchapreague Inlet, Va	1	3	2	2	2	3		1		2	16
Watchapreague Inlet (Dawson's Shoals), Va									2		2
Watch Hill, R. I		1						2	2	1	6
Webber's Ledge, Muscongus Sound, Me				1							1
Wellfleet, Cape Cod, Mass	3	1						1		1	6
Well's Beach, Me		1		1					1		3
West Chop, Vineyard Sound, Mass		1	2	9			1	1	3	2	19
West Dennis, Cape Cod, Mass		1						1			2
West Island, Buzzard's Bay, Mass										1	1
West Hampton Bar, Long Island						1					1
Westport Point, Mass						1					1
West Sister, The, Portsmouth Harbor, N. H									1		1
West Triangle, Me								1			1
Whale Back Shoal, Cape Cod, Mass							1				1
Whale Rock, R. I							1	1			2
Whale Rock Light, Me			1								1
Wheeler's Bay (Red Ledge in), Me				1							1
White Head (1 mile south of light), Me							1				1
White Head Island, Penobscot Bay, Me									2	1	3
Whitestone Point, N. Y								1			1
Whortleberry Island, Long Island Sound								1			1
Wicopesset Reef, Conn							1				1
Wilkes' Ledge, Buzzard's Bay, Mass			1								1

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Seabright, N. J.								2			2
Sea Grove, N. J.					1						1
Seal Cove, Mount Desert, Me.				1							1
Seal Harbor, Muscle Ridge Channel, Me.					1	2	1			1	5
Seal Island, Machias, Me.						1					1
Seavey's Island, Portsmouth Harbor, N. H.				1					1	2	4
Seven Foot Knoll, Chesapeake Bay										1	1
Severn River (mouth of), Md.						1					1
Sewall's Point, Chesapeake Bay, Va.				1							1
Shabbit Island, Me.			1								1
Shallotte Inlet, N. C.					1		1				2
Shark River, N. J.		1				1					2
Sheep Island Bar, West Penobscot Bay, Me.									1	1	2
Sheepscot River (mouth of), Me.						1					1
Shinnecock, Long Island, N. Y.		1		2	1				2		6
Ship Bottom, Long Beach, N. J.							1				1
Ship Island (shoal off), Miss.										1	1
Ship Shoals, Va.					1						1
Shippan Point Reef, Long Island Sound.		1	1								2
Shively Ledge (off Spruce Head), Me.						1					1
Shore Island, R. I.						1					1
Short Beach (½ mile south L. S. S., No. 23), N. J.							3				3
Shot Islands, Englishman's Bay, Me.										1	1
Shovelful Shoal, Nantucket Sound, Mass.			1	3		1	2				7
Simonton's Cove, Cape Elizabeth, Me.				1							1
Sinepuxent Neck, Md.	1	1			1	2	1				6
Skiff Shoals, Nantucket Sound, Mass.									1		1
Skinner's Head, Marblehead Harbor, Mass.					1	1					2
Sloop Ledge, Sheepscot Bay, Me.							1				1
Smith's Island, Va.	1			3		1	1	1		1	8
Smith's Island (shoal off), Va.									1		1
Smith's Point, Chesapeake Bay, Va.		1						3	1	1	6
Smith's Point (5 miles northwest of), Chesapeake Bay, Va.										1	1
Smith's Point, Long Island, N. Y.						1	1		1	1	4
Smith's Rock, Long Island Sound.		2									2
Smith's Rock, Scituate Neck, Mass.					1						1
Smithtown Harbor, Long Island, N. Y.					2	1					3
Smithville, N. C.		1									1
Somers Point, N. J.							2				2
South Breaker, off Baker's Island.						1					1
South Chatham, Mass.						1					1
Southern Island (near Saint George), Me.						1					1
South Hampton, Long Island, N. Y.		1	1								2
South Harwich, Mass.								1			1
South Island, Fishing Bank, S. C.								1			1
South Marshfield, Beatie's Island, Me.			1								1
South Norwalk, Conn.									1		1
Southport Bar, Conn.		1			1						2
Southport Island, Me.		3									3
South Saint George, Me.					2						2
Southwest Ledge, New London, Conn.								1			1
Southwest Pass, mouth of Mississippi River, La.					1						1
Sow and Pigs, Vineyard Sound, Mass.		1			1			2	1		5
Spectacle Island, Cumberland Inlet, Ga.					1						1
Spindle Rock, south side Rose Island, R. I.									1		1
Spruce Head Island, Muscle Ridge Channel, Me.										1	1
Spruce Head Island, Penobscot Bay, Me.							1		1		2
Spruce Island, off Machias (south side of), Me.						1					1
Spruce Point, Booth Bay Harbor, Me.					1			1			2
Spruce Point Ledge, Me.		1	1								2
Squam Beach, Mass.									2		2
Squan Beach, N. J.	2	1	2	2	2	1		2	3	1	16
Squash Meadow Shoals, Vineyard Sound, Mass.			2	1						1	4
Squipnocket Beach, Mass.									1		1
Stage Island, Saco Bay, Me.							1				1
Stanford, Conn.			1					1	2		4
Stanford (sunken ledge off), Conn.							1				1
Stanley's Point, Me.								1			1
Staten Island, N. Y.			1	1	1				1		4
Stingray Point, Chesapeake Bay, Va.				2							2
Stirrup Key, Fla.						1					1
Stone Beacon Ledge, Portsmouth Harbor, N. H.					1						1
Stone Horse Shoal, Nantucket Sound, Mass.				1	1	1		1		3	7
Stone Horse Shoal (near Tybee Island), Ga.				2							2

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

PACIFIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Fort Stevens, Oreg			1								1
Four-Fathom Bank, Cal	1										1
Fresh Water Bay, Wash. Ter			1					1			2
Gerstler's Cove, Cal						1					1
Golden Gate (1 mile south of), Cal										1	1
Golden Gate (5 miles south of L. S. S. No. 7), Cal									1		1
Goleta, Cal						1					1
Golorin Sound, Alaska										1	1
Gualala, Cal									1		1
Humboldt Bar, Cal						2				1	3
Hunter's Point, San Francisco Bay, Cal						1					1
Kadiak Harbor (21 miles southeast of), Alaska			1								1
Kake Island, Alaska		1	1								2
Karluk, Kadiak Island, Alaska										1	1
Karquines Strait, Cal					1			2			3
Lime Point, San Francisco Bay, Cal						1				1	2
Little River, Cal				1		1	1	1			4
Marrowstone Point, Wash. Ter				1							1
Mendocino, Cal						1					1
Middle Ground, Suisun Bay, Cal								1			1
Mile Rocks, entrance to San Francisco Bay, Cal					1	2		1	1		5
Mission Rocks, San Francisco Bay, Cal							1				1
Monterey Harbor, Cal							1				1
Mora Bay, Cal					2						2
Neah Bay, Wash. Ter									1		1
Neah Bay (rock off), Wash. Ter									1		1
New Dungeness, Wash. Ter		1					2				3
Newport, Cal		1						1			2
Nisqually River (mouth of), Puget Sound									1		1
North Beach, San Francisco Bay, Cal								1			1
North Head, San Francisco Bay, Cal			1								1
Novarro River (mouth of), Cal									1		1
Novarro River (reef), Cal							1				1
Noyo River (mouth of), Cal						1			1		2
Oonalaska Island, Alaska								1			1
Ounga Island, Alaska					1						1
Pillar Point, Cal					1						1
Pillar Point, Straits of Fuca, Wash. Ter										1	1
Point Adams, Oreg							1				1
Point Arena, Cal		1	2	1			1	1	1		7
Point Bonita, Cal						1			1		2
Point Bonita (5½ miles northwest of), Cal							1				1
Point Fermin, Cal										1	1
Point Gorda, Cal		1									1
Point Greenville, Wash. Ter		1						1			2
Point Lobos, Golden Gate, Cal										1	1
Point Montara Reef (near), Cal									1		1
Point of Rocks, Mission Bay, Cal						1					1
Point of Rocks, Wrangel, Alaska				1							1
Point Reyes, Cal			1		1	1	1				4
Point Sal, Cal				1		1			1		3
Point San Luis (1 mile west of), Cal									1		1
Point San Pedro, Cal								1			1
Point Sur, Cal			1								1
Point Wilson, Wash. Ter				1					1		2
Port Orford, Oreg				1							1
Port Orford (15 miles south of), Oreg						1					1
Port Townsend, Wash. Ter								1			1
Red Rock, San Francisco Bay, Cal								1			1
Rocky Point, Cal					1						1
Rogue River Bar, Oreg			1	1				2			4
Rough and Ready (5 miles south of Point Arena), Cal						1					1
Sacramento River (mouth of), Cal										1	1
Saint Lawrence Island, Bering Sea, Alaska									1		1
Saint Paul's Island (ledge off), Alaska									1		1
Salmon Creek, Cal	1					1					2
San Buenaventura, Cal				3	1						4
San Diego Bay, Cal						1					1
San Juan Island, Straits of Fuca, Wash. Ter		1			1						2
San Miguel Island, Cal								2	1		3
San Pablo Bay, Cal						1					1
San Pedro Bay, Cal	1								1		2
Sand Island, Oreg		1		1			1				3
Santa Cruz Point, Cal					1			1			2
Shoalwater Bay, Wash. Ter				1				1		2	4

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

PACIFIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Smith's Point, Oreg.....				1							1
Smith's River (mouth of), Cal.....						1	1		1		3
Soquel (½ mile north of), Cal.....									1		1
South Beach, San Francisco Bay, Cal.....			1	1							2
South Farallon Island, Cal.....									1		1
Stewart's Point, Cal.....				1					1		2
Tillamook Bar, Oreg.....									1		1
Tomales Point, Cal.....		1									1
Trinidad, Cal.....						1					1
Umpqua Bar, Oreg.....	2	1		1			1				5
Wesport, Humboldt Bay, Cal.....							1	1			2
Wilmington Bay, Cal.....				1							1
Yaquina Bay, Cal.....		1		1	1	1					4

LAKE COASTS.*

[NOTE.—This list includes also places on the Canadian shore where American vessels have stranded.]

Ahnapee, Lake Michigan, Wis.....			1				1			3	5
Alabaster Reef, Lake Huron, Mich.....	1			1							2
Alaska, Lake Michigan, Wis.....								1			1
Alcona, Lake Huron, Mich.....		1				2				1	4
Alpena, Lake Huron, Mich.....		2									2
Amherstburg, Detroit River, Canada.....			2			1					3
Amherst Island, Lake Ontario, Canada.....							1				1
Antrim, Lake Michigan.....			1	1							2
Apostle Islands, Lake Superior, Wis.....			1								1
Ashland Bay, Lake Superior, Wis.....									1		1
Ashtabula, Lake Erie, Ohio.....	1		1	2	2		1			1	8
Ashtabula (8 miles southwest of), Lake Erie, Ohio.....									1		1
Au Sable River, Lake Huron, Mich.....						1		2			3
Avon Point, Lake Erie, Ohio.....			1								1
Bailey's Harbor, Lake Michigan, Wis.....				2					7		9
Barcelona, Lake Erie, N. Y.....					1						1
Bark River (mouth of), Green Bay, Mich.....					1	1				1	3
Bar Point, Lake Erie, Canada.....	4	4	1	1		1		1		2	14
Beaver Bay (2 miles northeast of), Lake Superior.....								1			1
Beaver Bay (8 miles northeast of), Lake Superior.....								1			1
Beaver Island, Lake Michigan, Mich.....		2		1			1	2	2	3	11
Belle Island, Detroit River, Mich.....		4	1	1				2			8
Biddle's Point, Lake Michigan, Mich.....							1				1
Big Sandy Creek, Lake Ontario, N. Y.....								5	5	4	14
Big Sandy Creek (4½ miles off), Lake Ontario, N. Y.....									1		1
Big Sandy Creek (5 miles north of), Lake Ontario, N. Y.....										2	2
Big Sodus, Lake Ontario.....						2		2			4
Black Lake Harbor, Lake Michigan, Mich.....								1			1
Black River, Lake Erie, Ohio.....		1									1
Black River, Lake Huron, Mich.....			2								2
Black River, Lake Michigan, Wis.....								1			1
Black Island Reef, Lake Huron, Mich.....								2	2		4
Bois Blanc Island, Detroit River, Canada.....				1			1			3	5
Bois Blanc Island, Straits of Mackinac, Mich.....	2	2	1	2				1		2	10
Braddock's Point, Lake Ontario, N. Y.....					1						1
Buffalo (4 miles west of), Lake Erie, N. Y.....								1			1
Buffalo Harbor, Lake Erie, N. Y.....	1	1	2	1	1	2		5	4	1	18
Burnt Cabin Point Reef, Lake Huron, Mich.....						1				1	2
Buckhorn Dock, Lake Erie, Canada.....					1						1
Calumet Harbor, Lake Michigan, Ill.....										1	1
Calumet (14 miles south of), Lake Michigan, Ill.....										1	1
Calumet Reef, Lake Michigan, Ill.....			1								1
Cana Island, Lake Michigan, Wis.....			1						1		2
Carlton Island, Lake Ontario, Canada.....	1										1
Carlton, Lake Michigan, Wis.....		1					1				2
Cat-Head Point, Lake Michigan, Mich.....			1								1
Cedar Point, Lake Huron.....								1			1
Cedar Point, Sandusky Bay, Lake Erie, Ohio.....		2	1	1				2	1		7

*In a few instances the number of stranded vessels in this table do not agree with those reported in the annual report of the previous year, having been increased by wreck reports received since the publication of the last report.

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

PACIFIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Fort Stevens, Oreg			1								1
Four-Fathom Bank, Cal	1										1
Fresh Water Bay, Wash. Ter			1					1			2
Gerstler's Cove, Cal						1					1
Golden Gate (1 mile south of), Cal										1	1
Golden Gate (5 miles south of L. S. S. No. 7), Cal									1		1
Goleta, Cal						1					1
Golorin Sound, Alaska										1	1
Gualala, Cal									1		1
Humboldt Bar, Cal						2				1	3
Hunter's Point, San Francisco Bay, Cal						1					1
Kadiak Harbor (21 miles southeast of), Alaska			1								1
Kake Island, Alaska		1	1								2
Karluk, Kadiak Island, Alaska										1	1
Karquines Strait, Cal					1			2			3
Lime Point, San Francisco Bay, Cal						1				1	2
Little River, Cal				1		1	1	1			4
Marrowstone Point, Wash. Ter				1							1
Mendocino, Cal						1					1
Middle Ground, Suisun Bay, Cal								1			1
Mile Rocks, entrance to San Francisco Bay, Cal					1	2		1	1		5
Mission Rocks, San Francisco Bay, Cal							1				1
Monterey Harbor, Cal							1				1
Mora Bay, Cal					2						2
Neah Bay, Wash. Ter									1		1
Neah Bay (rock off), Wash. Ter									1		1
New Dungeness, Wash. Ter		1					2				3
Newport, Cal		1						1			2
Nisqually River (mouth of), Puget Sound									1		1
North Beach, San Francisco Bay, Cal								1			1
North Head, San Francisco Bay, Cal			1								1
Novarro River (mouth of), Cal									1		1
Novarro River (reef), Cal							1				1
Noyo River (mouth of), Cal						1			1		2
Oonalaska Island, Alaska								1			1
Ounga Island, Alaska					1						1
Pillar Point, Cal					1						1
Pillar Point, Straits of Fuca, Wash. Ter										1	1
Point Adams, Oreg							1				1
Point Arena, Cal		1	2	1			1	1	1		7
Point Bonita, Cal						1			1		2
Point Bonita (5 1/2 miles northwest of), Cal							1				1
Point Fermin, Cal										1	1
Point Gorda, Cal		1									1
Point Greenville, Wash. Ter		1						1			2
Point Lobos, Golden Gate, Cal										1	1
Point Montara Reef (near), Cal									1		1
Point of Rocks, Mission Bay, Cal						1					1
Point of Rocks, Wrangel, Alaska				1							1
Point Reyes, Cal			1		1	1	1				4
Point Sal, Cal				1		1			1		3
Point San Luis (1 mile west of), Cal									1		1
Point San Pedro, Cal								1			1
Point Sur, Cal			1								1
Point Wilson, Wash. Ter				1					1		2
Port Orford, Oreg				1							1
Port Orford (15 miles south of), Oreg						1					1
Port Townsend, Wash. Ter								1			1
Red Rock, San Francisco Bay, Cal								1			1
Rocky Point, Cal					1						1
Rogue River Bar, Oreg			1	1				2			4
Rough and Ready (5 miles south of Point Arena), Cal						1					1
Sacramento River (mouth of), Cal										1	1
Saint Lawrence Island, Bering Sea, Alaska									1		1
Saint Paul's Island (ledge off), Alaska									1		1
Salmon Creek, Cal	1					1					2
San Buenaventura, Cal				8	1						4
San Diego Bay, Cal						1					1
San Juan Island, Straits of Fuca, Wash. Ter		1			1						2
San Miguel Island, Cal								2	1		3
San Pablo Bay, Cal						1					1
San Pedro Bay, Cal	1								1		2
Sand Island, Oreg		1		1			1				3
Santa Cruz Point, Cal					1			1			2
Shoalwater Bay, Wash. Ter				1				1		2	4

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

PACIFIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Smith's Point, Oreg.....				1							1
Smith's River (mouth of), Cal.....						1	1				2
Soquel (½ mile north of), Cal.....									1		1
South Beach, San Francisco Bay, Cal.....			1	1							2
South Farallon Island, Cal.....									1		1
Stewart's Point, Cal.....				1					1		2
Tillamook Bar, Oreg.....									1		1
Tomales Point, Cal.....		1									1
Trinidad, Cal.....						1					1
Umpqua Bar, Oreg.....	2	1		1			1				5
Wesport, Humboldt Bay, Cal.....							1	1			2
Wilmington Bay, Cal.....				1							1
Yaquina Bay, Cal.....		1		1	1	1					4

LAKE COASTS.*

[NOTE.—This list includes also places on the Canadian shore where American vessels have stranded.]

Ahnapee, Lake Michigan, Wis.....			1				1			3	5
Alabaster Reef, Lake Huron, Mich.....	1			1							2
Alaska, Lake Michigan, Wis.....								1			1
Alcona, Lake Huron, Mich.....		1				2				1	4
Alpena, Lake Huron, Mich.....		2									2
Amherstburg, Detroit River, Canada.....			2			1					3
Amherst Island, Lake Ontario, Canada.....							1				1
Antrim, Lake Michigan.....			1	1							2
Apostle Islands, Lake Superior, Wis.....			1								1
Ashland Bay, Lake Superior, Wis.....									1		1
Ashtabula, Lake Erie, Ohio.....	1		1	2	2		1			1	8
Ashtabula (8 miles southwest of), Lake Erie, Ohio.....									1		1
Au Sable River, Lake Huron, Mich.....						1		2			3
Avon Point, Lake Erie, Ohio.....			1								1
Bailey's Harbor, Lake Michigan, Wis.....				2					7		9
Barcelona, Lake Erie, N. Y.....					1						1
Bark River (mouth of), Green Bay, Mich.....					1	1				1	3
Bar Point, Lake Erie, Canada.....	4	4	1	1		1		1		2	14
Beaver Bay (2 miles northeast of), Lake Superior.....								1			1
Beaver Bay (8 miles northeast of), Lake Superior.....								1			1
Beaver Island, Lake Michigan, Mich.....		2		1			1	2	2	3	11
Belle Island, Detroit River, Mich.....		4	1	1				2			8
Biddle's Point, Lake Michigan, Mich.....							1				1
Big Sandy Creek, Lake Ontario, N. Y.....								5	5	4	14
Big Sandy Creek (4½ miles off), Lake Ontario, N. Y.....									1		1
Big Sandy Creek (5 miles north of), Lake Ontario, N. Y.....										2	2
Big Sodus, Lake Ontario.....						2		2			4
Black Lake Harbor, Lake Michigan, Mich.....								1			1
Black River, Lake Erie, Ohio.....		1									1
Black River, Lake Huron, Mich.....			2								2
Black River, Lake Michigan, Wis.....								1			1
Black Island Reef, Lake Huron, Mich.....								2	2		4
Bois Blanc Island, Detroit River, Canada.....				1			1			3	5
Bois Blanc Island, Straits of Mackinac, Mich.....	2	2	1	2				1		2	10
Braddock's Point, Lake Ontario, N. Y.....					1						1
Buffalo (4 miles west of), Lake Erie, N. Y.....								1			1
Buffalo Harbor, Lake Erie, N. Y.....	1	1	2	1	1	2		5	4	1	18
Burnt Cabin Point Reef, Lake Huron, Mich.....						1				1	2
Buckhorn Dock, Lake Erie, Canada.....					1						1
Calumet Harbor, Lake Michigan, Ill.....										1	1
Calumet (14 miles south of), Lake Michigan, Ill.....										1	1
Calumet Reef, Lake Michigan, Ill.....			1								1
Cana Island, Lake Michigan, Wis.....			1						1		2
Carlton Island, Lake Ontario, Canada.....	1										1
Carlton, Lake Michigan, Wis.....		1						1			2
Cat-Head Point, Lake Michigan, Mich.....			1								1
Cedar Point, Lake Huron.....								1			1
Cedar Point, Sandusky Bay, Lake Erie, Ohio.....		2	1	1				2	1		7

*In a few instances the number of stranded vessels in this table do not agree with those reported in the annual report of the previous year, having been increased by wreck reports received since the publication of the last report.

TABLE 65—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Cedar River, Lake Michigan, Mich				1							1
Centreville (1 mile north of), Lake Michigan, Wis										1	1
Chamber's Island, Lake Michigan, Wis		1									1
Charity Shoal, Lake Ontario										1	1
Charlevoix, Lake Michigan, Mich					1						1
Charlotte, Lake Ontario, N. Y			1	1			2			1	5
Charlotte (4 miles west of), Lake Ontario, N. Y						1					1
Charlotte (6½ miles west of), Lake Ontario, N. Y									1		1
Chaquamegon Point, Lake Superior, Wis									1		1
Cheboygan (Straits of Mackinac), Mich		1		4		1	1	1	1	1	10
Cheboygan (18 miles east of), Straits of Mackinac, Mich									1		1
Chester's Reef, Lake Erie			1								1
Chicago Harbor, Lake Michigan, Ill	1	1	1	6		2		4	1	1	17
Chicago (4 miles north of), Lake Michigan, Mich										1	1
Chicago (5 miles south of), Lake Michigan, Ill						1					1
Chick-e-no-lee Reef, Lake Erie, Canada	1	1						1			3
Chocolay River (1 mile east of), Lake Superior					1						1
Christian Island, Lake Huron, Canada									1		1
Clay Banks, Lake Erie	1	1							1		3
Clay Banks, Lake Michigan, Wis								2		1	3
Cleveland Harbor, Lake Erie, Ohio		3	1	2		1		2	3	3	15
Cockburn Island, Lake Huron, Canada							2				2
Colchester Reef, Lake Erie, Canada	1		1				1			5	8
Colchester Reef (1½ miles west of), Lake Erie, Canada									1		1
Collingwood, Lake Huron, Canada							1	1			2
Conneant (4 miles east of), Lake Erie, Ohio							1				1
Copper Harbor (reef at entrance), Lake Superior, Mich										1	1
Cove Island, Lake Huron, Canada		1							1		2
Death's Door, Lake Michigan, Wis		1	1	1	1					1	5
Detour, Detour Channel, Mich			1			1		2			4
Detour, Lake Huron, Mich									1		1
Detroit Island, Lake Michigan	1										1
Dorney's Reef Point, Lake Michigan			1								1
Duck Island, Lake Ontario, Canada	1										1
Duluth, Lake Superior, Minn	1										1
Dunkirk Harbor, Lake Erie, N. Y			2	1						1	4
Eagle Harbor, Green Bay, Lake Michigan, Wis							1				1
Eagle Harbor, Lake Superior, Mich	1	1								1	3
East Hamburg, Lake Erie, N. Y					1						1
East Sister Island, Lake Erie, Canada	1										1
East Sister Reef, Lake Erie, Canada							1				1
Eleven-Foot Shoals, Green Bay, Lake Michigan			1						1	1	3
Elk Creek, Lake Erie, Pa								1			1
Elk Rapids, Lake Michigan, Mich								1			1
Ellison Bay, Lake Michigan, Wis					1				1		2
Erie Peninsula, Lake Erie, Pa									1		1
Erie (4 miles east of), Lake Erie, Pa									8		3
Erie (4 miles below piers), Lake Erie, Pa									1		1
Erie Harbor, Lake Erie, Pa	2		2	1		1		2	1		9
Erie (reef 9 miles east of), Lake Erie, Pa									1		1
Escanaba, Lake Michigan, Mich				1							1
Evanston, Lake Michigan, Ill	2	2						1		1	6
Fairport, Lake Erie, Ohio	1	2	2	1		1	1	1	5	1	15
False Presque Isle, Lake Huron, Mich				2		2		1			5
Fayette Harbor (1 mile southwest of), Fayette, Lake Michigan, Mich										1	1
Featherbed Shoals, Lake Ontario			1						1		2
Fighting Island, Detroit River			1				1	1	1	2	6
Fish Point, near Point au Pelée, Lake Erie, Canada							1				1
Fisherman's Island Reef, Lake Michigan, Mich				1							1
Ford Shoals, Lake Ontario, N. Y							1				1
Forest Bay, Lake Huron, Mich			1				1				2
Forty-mile Point, Lake Huron, Mich			1		1	1					3
Forty-mile Point, Lake Ontario, N. Y						1					1
Foscuro, Lake Michigan, Wis								1			1
Fox Island Shoal, Lake Michigan, Mich									1		1
Frankfort, Lake Michigan, Mich	2	3	1	2			1		2	1	12
Gallop Island Reef, Lake Ontario, N. Y									1		1
Gallop Island, Lake Ontario, N. Y						1					1
Garden Island, Lake Michigan								1			1
Geneva (off), Lake Erie, Ohio			1								1
Georgian Bay, Canada										1	1
Glen Arbor, Lake Michigan, Mich								1			1
Glencoe, Lake Michigan, Ill								1			1

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Marquette, Lake Superior, Mich	2	2								1	5
Maumee, Lake Erie, Ohio	1										1
Michigan City, Lake Michigan, Ind	2	1	2	1		3		3	1	1	13
Middle Bass Island, Lake Erie, Ohio			1								1
Middle Island, Lake Huron, Mich	1	1									2
Middle Island (reef one mile east of), Lake Erie, Canada										1	1
Middle Sister Island, Lake Erie, Canada	2										2
Michigan, Mich	1	2	1	2		1		3	1	3	14
Lake Michigan				1						1	1
Michigan, Mich	1		1		1						3
Lake Michigan, Mich	2	3	1	1	1	1		1	3	1	14
Lake Michigan, Mich	1	4	4	1					2		12
Lake Michigan, Mich				1							1
Lake Michigan, Mich					1						1
Lake Michigan, Mich		1					1				2
Lake Michigan, Mich			1	1				2			3
Lake Erie, Canada			2						2		4
Michigan, Mich		4	1	2	2			3			11
North Point, Lake Huron, Mich						4		1			5
North Point, Lake Michigan, Wis	2	1						1	2		6
Northport, Lake Michigan, Mich										1	1
Oak Creek, Lake Michigan, Wis								1			1
Oconto Reef, Lake Michigan, Wis				1							1
Old Fort Mackinac, Straits of Mackinac, Mich				3	1						4
Oqueoc River (mouth of), Lake Huron, Mich										1	1
Oscoda, Lake Huron, Mich							1			3	4
Oswego, Lake Ontario, N. Y.	3	1		1	2		2	1	3	1	14
Oswego, (3½ miles west of), Lake Ontario, N. Y.								1			1
Oswego (5 miles east of), Lake Ontario, N. Y.								1			1
Oswego (7 miles east of), Lake Ontario, N. Y.									1		1
Ottawa Point, Lake Huron, Mich			1					1		1	3
Otter Creek (mouth of), Lake Michigan, Mich									1		1
Papoose Island, Lake Huron, Canada	1										1
Parish Island, Lake Superior, Canada										1	1
Pêche Island, Lake Saint Clair, Canada			1								1
Peninsula Point, Lake Michigan, Mich				1					1		2
Peninsula Point (reef 5 miles from), Mich								1			1
Pentwater, Lake Michigan, Mich		2					1			1	4
Peshtigo Harbor (on bar), Lake Michigan, Wis									1	1	2
Peshtigo Reef, Lake Michigan, Wis	1	1	1								3
Pierport, Lake Michigan, Mich										2	2
Pigeon Bay, Lake Erie, Canada		2				2					4
Pigeon Island, Lake Ontario, Canada			1								1
Pilot Island, Lake Michigan, Wis	1	1		1		3		1		2	8
Pine River, Lake Michigan, Mich		1				1					2
Plum Island, Lake Michigan, Wis			1	1		1		1	1	1	6
Point Abino, Lake Erie, Canada			3				1	1		1	6
Point au Pelée, Lake Erie, Canada	5	4	3	3		2	1			1	19
Point au Pelée Island, Lake Erie, Canada						2		2	1		5
Point au Sable, Lake Huron, Mich	3										3
Point au Sable, Straits of Mackinac, Mich				1				1	1		3
Point au Sable Bar, Green Bay, Lake Michigan, Wis										1	1
Point aux Barques, Lake Huron, Mich		1	1	1		1			1	1	6
Point aux Barques (2 miles east of), Lake Huron, Mich								1			1
Point aux Barques (4 miles above), Lake Huron, Mich							1				1
Point au Bec Soies, Lake Michigan, Mich	1										1
Point aux Pins, Lake Erie, Canada	1										1
Point Clark, Lake Huron, Canada				1							1
Point Detour, Lake Michigan, Mich										1	1
Point La Barbe, Straits of Mackinac, Mich				1							1
Point Monllier, Lake Erie, Mich			1								1
Point Peninsula, Lake Ontario, N. Y.					1			1			2
Point Saint Ignace, Straits of Mackinac, Mich								1			1
Portage, Lake Michigan, Mich					1						1
Portage Island Reef, Green Bay, Lake Michigan							1				1
Portage River, Lake Superior, Mich			1							1	2
Port Austin, Lake Huron, Mich		1	2	2		2			1		8
Port Bruce, Lake Erie, Canada	2										2
Port Burwell, Lake Erie, Canada	2	1		1							4

TABLE 65.—List of places on the Coasts of the United States where vessels have Stranded, &c.—Continued.

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Port Colborne, Lake Erie, Canada.....	1		1			1	1	1		1	6
Port Dalhousie, Lake Ontario, Canada.....				1							1
Port Hope, Lake Huron, Mich.....							1	1			2
Port Maitland, Lake Erie, Canada.....	2		4								6
Port Ontario, Lake Ontario, N. Y.....								1	1		2
Port Ryerse, Lake Erie, Canada.....						1					1
Port Sanilac, Lake Huron, Mich.....		1				1					2
Port Sarnia, Saint Clair River, Canada.....			1				1				2
Port Stanley, Lake Erie, Canada.....	1										1
Port Washington, Lake Michigan, Wis.....			1								1
Poverty Island, Lake Michigan, Mich.....	1					1					2
Presque Isle, Lake Erie, Pa.....	2					1				2	5
Presque Isle, Lake Huron, Mich.....		1	1			2		1	5		10
Presque Island, Lake Superior, Wis.....									1		1
Put-in-Bay Island, Lake Erie, Ohio.....			1				1	1			3
Pultneyville (2 miles east of), Lake Ontario, N. Y.....							1				1
Quinte Bay, Lake Ontario, Canada.....				1							1
Racine, Lake Michigan, Wis.....					3			4			7
Racine Point, Lake Michigan, Wis.....								2			2
Racine Reef, Lake Michigan, Wis.....	2	2	2	1		1			1	1	10
Rawley's Bay, Lake Michigan, Wis.....									1	1	2
Rock Falls, Lake Huron, Mich.....			2								2
Rock Island, Lake Michigan, Wis.....		1									1
Rondeau, Lake Erie, Canada.....	6									1	7
Sackett's Harbor (rocks near), Lake Ontario, N. Y.....									1		1
Saginaw River (mouth of), Lake Huron, Mich.....			1				1	1			3
Saint Clair Flats, Lake Saint Clair.....			2			1		1			4
Saint Helena Island, Straits of Mackinac, Mich.....	2			1		1		1		1	6
Saint Joseph, Lake Michigan, Mich.....	2	1		3	2	2	1	6	1	1	19
Saint Martin's Island, Lake Michigan, Mich.....		1					1				2
Saint Martin's Shoal, Lake Michigan, Mich.....								1			1
Saint Mary's River (near Lake George), Mich.....										1	1
Salmon Point, Lake Ontario, Canada.....									1		1
Sand Beach, Lake Huron, Mich.....			1			2	1	8	1	2	15
Sand Beach (7 miles south of), Lake Huron, Mich.....										2	2
Sand Point (½ mile south of), Lake Michigan, Mich.....									1		1
Saugatuck, Lake Michigan, Mich.....	1									1	2
Sault Sainte Marie (1 mile above), Mich.....						2					2
Sheboygan, Lake Michigan, Wis.....	2	1	2	1				1	1	3	11
Sheboygan (2 miles south of), Lake Michigan, Wis.....										1	1
Sheboygan (7 miles south of), Lake Michigan, Wis.....										1	1
Sister Bay, Lake Michigan, Wis.....					1				1	1	3
Sister Island, Lake Michigan, Wis.....				1							1
Sister Reef Island, Lake Michigan.....		1									1
Skulligalee, Lake Michigan, Mich.....					1				1		2
Sleeping Bear Point, Lake Michigan, Mich.....			1	1							2
South Bay Point, Lake Ontario, Canada.....								1			1
South Fox Island, Lake Michigan, Mich.....		1						1	2	1	5
South Haven, Lake Michigan, Mich.....	1		1	4				2	2	1	11
South Haven (3 miles south of), Lake Michigan, Mich.....							1				1
South Manitou Island, Lake Michigan, Mich.....	1		1	5	2			1	5	2	17
South Point, Lake Michigan, Wis.....								1			1
Spider Island, Lake Michigan, Wis.....	2					1					3
Stowe Island Reef, Lake Erie.....			2	1		1	1			3	8
Stony Island, Detroit River.....	1		1				1			1	4
Stony Point, Lake Ontario, N. Y.....					2					1	3
Stony Point (5½ miles south of), Lake Ontario, N. Y.....									1		1
Sturgeon Bay, Lake Michigan, Wis.....										1	1
Sturgeon Point, Lake Erie, N. Y.....	1		1								2
Sturgeon Point, Lake Huron, Mich.....			1					1		1	3
Sugar Island, Lake Huron, Mich.....						1				1	2
Tawas Harbor, Lake Huron, Mich.....	2	1							1		4
Thunder Bay, Lake Huron, Mich.....	1				2	2	1				6
Thunder Bay Island, Lake Huron, Mich.....							1	1		3	5
Tibbit's Point, Lake Ontario, N. Y.....						1					1
Toledo, Lake Erie, Ohio.....										1	1
Toronto, Lake Ontario, Canada.....				1	1						2
Turtle Island, Lake Erie, Ohio.....									1		1
Twin Rivers, Lake Michigan, Wis.....								3	1	2	6
Twin Rivers (1 mile south of), Lake Michigan, Wis.....									1		1
Twin Rivers Point, Lake Michigan, Wis.....				1					1	2	4
Twin Rivers Point (2 miles north of), Lake Michigan, Wis.....								1			1
Two Creeks, Lake Michigan, Wis.....				1						1	2
Walker's Point, Lake Huron, Canada.....							1				1

TABLE 66.—List of places where American vessels have Stranded, in FOREIGN WATERS, &c.—Continued.

Name of place.	Fiscal year ending June 30—								Total.
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Bahamas (Little Bahama Island)					1				1
Bahamas (Marignana Reef)	1	1				2			4
Bahamas (Matanilla Reef)			1						1
Bahamas (Middle Reef)	1								1
Bahamas (Miradpuroos Island)					1				1
Bahamas (Moselle Shoals)	1								1
Bahamas (Nassau, New Providence)					1				1
Bahamas (No Name Cay)				1					1
Bahamas (North Bimini)			1						1
Bahamas (Northwest Reef)	1								1
Bahamas (Orange Key)							1		1
Bahamas, Powell's Key		1							1
Bahamas (Rum Cay)		2							2
Bahamas (Sandy Cay)					1	1			2
Bahamas (Sheep Keys Shoal)			1						1
Bahamas (Silver Key Bank)						1			1
Bahamas (South Bimini)	1	1							2
Bahamas (Whale Key)					1				1
Bahamas (Wood Key)		1							1
Balahare Island, Hebrides				1					1
Balbriggan, Ireland							1		1
Banca Straits, East Indies						1			1
Baracoa Harbor, Cuba			2						2
Barbadoes		1						1	2
Barbarettia Island, Honduras			1						1
Barbuda Island, British West Indies		1							1
Barrington, Nova Scotia						1			1
Batavia Harbor (Neptune's Shoal), Java			1						1
Bay of Fundy (Saint Mary's Ledges, entrance to)					1				1
Belfast, Carrickfurgus Bank, Ireland		1							1
Belize (main reef, 30 miles off)		1							1
Benoit's Cove, Newfoundland				1					1
Bermudas		2	2					1	5
Bermudas (Adventure Reef)					1				1
Bermudas Reef (15 miles off)					1				1
Bermudas (Saint George Island)					1		1		2
Bermudas (White Island)							1		1
Black Point, Honduras	1								1
Bog Shippegan Gully, New Brunswick					1				1
Boiling Reef, Gulf of Georgia	1								1
Bolton Island, Molucca Group, East Indies	1								1
Bonacca Harbor, Honduras	1								1
Bordeaux River (entrance of), France							1		1
Brava Island, Cape Verde Islands		1							1
Brazil (latitude 5° 2' south, longitude 25° 22' west), South America				1					1
Brazil Rock, Nova Scotia						1			1
Brier Island, Bay of Fundy		2							2
Buckos Reef, Tobago, British West Indies	1								1
Bull Ledge (off Cape Canso), Nova Scotia						1			1
Byron Island, Gulf of Saint Lawrence					1				1
Cambodia River (mouth of), China							1		1
Campobello Island, New Brunswick		1						1	2
Canso Harbor, Man of War Rock, Cape Breton								1	1
Cape Agulhas (15 miles north of), Africa			1						1
Cape Bollard, Newfoundland				1					1
Cape Breton Island		2							2
Cape Corrientes, Cuba						1			1
Cape Frio, Brazil				1					1
Cape Henry, Anticosti Island, Gulf of Saint Lawrence					1				1
Cape Hogan, Arichat Island, Nova Scotia		1							1
Cape Horn, South America				1					1
Cape Isabella, San Domingo, West Indies			1						1
Cape Negro, Brazil, South America		1							1
Cape Negro Harbor, Nova Scotia					1				1
Cape Negro Island, Nova Scotia	1		1						2
Cape Patani, Siam							1		1
Cape Roxo (10 miles northwest of), West Indies							1		1
Cape Sable, Nova Scotia	1							1	2
Cape Saint Mary, Newfoundland			1						1
Cape Saint Mary (5 miles south of), Newfoundland				1					1
Cape Saint Roque (near), Brazil								1	1
Cape Sharp, West Bay, Nova Scotia							1		1
Cape Town, Africa					1				1
Cape Verde Islands		2						1	3
Cardenas, Cuba			3						3

TABLE 66.—List of places where American vessels have Stranded in FOREIGN WATERS, &c.—Continued.

Name of place.	Fiscal year ending June 30—								Total.
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Carbarieu, Cuba		1							1
Cariaco, Venezuela			1						1
Carimata Straits, East Indies	1								1
Carlisle Bay, Barbadoes		1							1
Carnarvon Bar, North Wales				1					1
Carraquette Island, Bay of Chaleurs, New Brunswick								1	1
Carzonas, Mexico							1		1
Cascumpeque, Prince Edward Island					1				1
Cay Largo Island, Cuba			1						1
Cette, France				1					1
Champerico, Central America								1	1
Charles Island (Galapagos Group), Pacific Ocean						1			1
Charlottetown, Prince Edward Island				1					1
Che-Foo Light (Stick-up Rock), China							1		1
Cheticamp, Cape Breton Island			1						1
Chickotan Island, Kurile Islands, Asia			1						1
Chincorro Reef (off east coast of Yucatan)		1							1
Cienfuegos Harbor (west head of), Cuba		1	1						2
Coachman's Reef, Nova Scotia					1				1
Coatzacoalcas River Bar, Mexico		1						1	2
Cockburn Harbor Shoal, E. C.		1							1
Corcorocame Reef, Honduras					1				1
Colonia Harbor Rock, Uruguay, South America	1								1
Colorado Reef, Cuba	1		2						3
Colorado Reef, Lord Howe's Island, Australia			1						1
Comacho Bay, Peru			1						1
Constantinople, Turkey		1							1
Coral Island, Japan Bay				1					1
Coru Island, Central America	1				1				2
Coxyde, Belgium				1					1
Cruz del Padre, Cuba, West Indies						1		1	2
Cuba (Breton Key), West Indies								1	1
Cuba (reef north side of), West Indies						1			1
Cuba, Green Key, West Indies								1	1
Cumberland Gulf, British America						1			1
Dartmouth, England			1						1
Deer Island, New Brunswick	1	1		1	1				4
Demas Key (Salt Key Banks), West Indies		1							1
Digby Beach, Nova Scotia								1	1
Dofia Maria Inlet, Cuba	1								1
Dos Bocas (3 miles west of), Mexico								1	1
Duck Island, New Brunswick		1			1				2
Dugeon Shoal, Yorkshire, England							1		1
Duke of York Island, South America							1		1
Duncan's Reef, Halifax, Nova Scotia								1	1
Dunkirk Roads (entrance to), France					1				1
Dungeness, Kent County, England					1				1
East London, Africa			1						1
Emulous Ledge, Nova Scotia				1					1
English Bank, Bristol Channel	1								1
Ensenada (mouth of), Bristol Channel, Argentine Republic			1						1
Falmouth Harbor Reef, Jamaica					1				1
Fiji Islands, northeast group			1						1
Flores Islands		1							1
Flores Island (mouth of Rio de la Plata), South America								1	1
Flushing, Holland				1					1
Flushing Roads (below Antwerp), Belgium					1			1	2
Formentera, Balearic Islands		1							1
Frenchman's Harbor, Isle of Rautan		1							1
Gabriola Reef, Gulf of Georgia, British Columbia							1		1
Galway Island					1				1
Garrucha Roadstead, Spain				1					1
Gibraltar		1							1
Gibraltar Bay, coast of Spain							1		1
Gonaive Island, West Indies			1						1
Goodwin Sands, England			1						1
Gough's Island, South Pacific Ocean					1				1
Grand Cayman, West Indies				1			1		2
Grand Manan Island, New Brunswick			1		1				2
Grand Sands, near Trieste, Austria			1						1
Grand Turk Island, British West Indies		1							1
Greytown, Nicaragua				1					1
Grindstone Island, New Brunswick	1								1
Guanabana, Cuba				1					1
Gull Island, Long Harbor, Newfoundland			1						1
Gull Island, Nova Scotia	1							1	2
Gun Fleet Sound, Essex, England					1				1

TABLE 66.—List of places where American vessels have Stranded in FOREIGN WATERS, &c.—Continued.

Name of place.	Fiscal year ending June 30—								Total.
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Hainan Island, China							1		1
Hake (south banks) Nieuwe-Diepe, Holland.....				1					1
Halifax, Nova Scotia.....			1				1		2
Hammond's Knoll, (off Yarmouth Head).....		1							1
Harbor Island, Bay of Islands, Newfoundland.....			1						1
Havana (reef side of), Cuba.....					1				1
Havana and Matanzas (between), Cuba.....		1							1
Hawaii Island, Sandwich Islands.....								1	1
Hayo, Main Rock, Bay of Yeddo, Japan.....		1							1
Heard's Island, Indian Ocean.....							1		1
Hebrides Island (Mac Ivor rock), Scotland.....							1		1
Helgoland, North Sea.....						1			1
Hesquot Sound, Vancouver's Island.....	1								1
Hong-Kong, China.....	2								2
Honolulu (near), Sandwich Islands.....								1	1
Hoogly River, Diamond Harbor, British India.....	1								1
Hook Point, Wexford, Ireland.....					1				1
Hope Point, England.....						1			1
Idsumosaki Island, Japan.....					1				1
Imbetiba, Brazil.....					1				1
Indian Island, Labrador.....		1							1
Isle Bois, Straits of Belle Isle.....					1				1
Isle de Aves, Venezuela, South America.....						2			2
Island of Veido.....								1	1
Jacquemel Bay, Hayti.....		1			1				2
Jardinillos Reef, West Indies.....		1	1					1	3
Jarvis Island, South Pacific.....				1					1
Jeremie Harbor, Hayti, West Indies.....			1		2				3
Jig Rock, near Shelburne, Nova Scotia.....			1						1
Kabe, Japan.....							1		1
Kabenda, Africa.....							1		1
Kaffraria, Africa.....								1	1
Kahoolawe Island, Sandwich Islands.....								1	1
Kaloot Bank, Holland.....		1							1
Kamachatka, Sea of Okhotsk.....			1						1
Kapaa, Sandwich Islands.....						1			1
Kingston Harbor, Jamaica.....						1			1
Kingstown, Ireland.....							1		1
Kutsino Island, off the coast of Japan.....					1				1
Laguna Bar, Mexico.....								1	1
Lamoig, Jutland.....			1						1
Langlade Island, Newfoundland.....						1			1
Last Island, Gulf of Mexico.....		1							1
Leones Islands, Montego Bay, Jamaica.....	1								1
Lepreaux, Bay of Fundy, New Brunswick.....					1				1
Letete Passage, New Brunswick.....								1	1
Liberty Point, Campobello Island, New Brunswick.....	1								1
Liscomb Harbor, Nova Scotia.....				1					1
Little Curacao, Caribbean Sea.....				1					1
Liverpool, England.....			1						1
Lockport Harbor (ledge off), Nova Scotia.....				1					1
Lockville, Geography Bay, West Australia.....	1								1
Los Palmas, Canary Islands.....			1						1
Lucca (reef), Jamaica.....					2				2
Luzon Island, 5 miles south of Cape Bozorda, East Indies.....								1	1
Macassar Straits, East Indies.....	1								1
MacMaster's Island, New Brunswick.....								1	1
MacMillard's Point, Straits of Canoe.....								1	1
MacNutt's Island, Nova Scotia.....		1							1
Madeira Island.....		1							1
Magdalen Islands, Gulf of Saint Lawrence.....		1				1			2
Magdalena Point, Buenos Ayres.....								1	1
Magdalena River (mouth of), United States of Colombia.....							1	1	2
Malpec Bar, Gulf of Saint Lawrence.....	1								1
Main à Dieu Reef, Cape Breton Island.....			1						1
Manchioneal Reef, Jamaica, West Indies.....						1			1
Manilla Bay, Philippine Islands.....						1			1
Manzanillo de Cuba (reef north of Sloop Channel), West Indies.....							1		1
Manzanillo, Mexico.....								2	2
Maquabo, Porto Rico.....			1						1
Marfa Drychon Beach, Cardigan Bay, Wales.....	1								1
Matane (Saint Lawrence River), Canada.....				1					1
Matanzas Harbor, Cuba.....		1	1		1				3
Mayo Island, Cape Verde Group.....	1								1
Mazatlan, Mexico.....				1			1	1	3
Middle Island, Albo Strait, East Indies.....							1		1
Middle Wolf, New Brunswick.....			1						1

TABLE 66.—List of places where American vessels have Stranded in FOREIGN WATERS, &c.—Continued.

Name of place.	Fiscal year ending June 30—								Total.
	1876.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Milford Haven, South Wales					1				1
Miragoane, Hayti, West Indies					1	1			2
Mistaken Point, Newfoundland			1						1
Monte Ruggisore (east of), Sardinia		1							1
Montevideo, Uruguay, South America						1			1
Morant Cays, Jamaica, West Indies				1					1
Mosquito Coast, Nicaragua							1	1	2
Mosquito Coast (Prince Apulco Bar), Nicaragua								1	1
Mount, Guadeloupe, West Indies					1				1
Murder Island Ledge (near Yarmouth), Nova Scotia			1						1
Musquash, Bay of Fundy, New Brunswick			1					1	2
Nag's Head, Louisburg, Cape Breton		1	1						2
Nanaimo, British America						1			1
Navidad Bay, Mexico							2		2
Neiva, (between Saint Domingo and Havana)				1					1
Nevia, Windward Islands				1					1
New Guinea (coral reef off southwest coast of)					1				1
New Harbor Point, Nova Scotia				1					1
Newport Roads, Wales		1							1
Nicaragua (coast of)						1			1
Noel's Point Reef (entrance to Saint George's Harbor), N. F.		1							1
Noon Day Rock, Pacific Ocean						1			1
Nuevitas Harbor, Cuba		1		1					2
Old Providence Island (reef 8 miles north of), Caribbean Sea									1
Opobo, west coast of Africa						1			1
Outer Brandy Rock, Newfoundland						1			1
Pabillon de Pica, South America			1						1
Packet Rock, Saint Thomas Harbor, West Indies						1			1
Palanca Shoals (near Manila), Philippine Islands		1							1
Para River (mouth of), South America	1								1
Paracel Reefs, China Sea									1
Passage, Bay of Biscay, Spain							1		1
Pedro Key, Caribbean Sea							1		1
Penzance, Mount's Bay, England							1		1
Perula Cay (50 miles north of Manzanillo), Mexico									1
Petty's Harbor, Newfoundland									1
Pictou, Nova Scotia					1				1
Piraguara Bay, Brazil					1				1
Platte River (mouth of), South America						1			1
Plover Bay, Siberia						1			1
Point Barbara, San Domingo Island						1			1
Point Castilla, Honduras, Central America				1					1
Point Della Madonna, South America					1				1
Point Negro and Point Race (between), South America			1						1
Ponape Island, Caroline Group, Pacific Ocean						1			1
Ponce, Porto Rico and Saint Thomas (between), W. I.				1					1
Pope Island, Malay Archipelago, Pacific Ocean			1						1
Porter's Passage (east side of), Halifax, Nova Scotia			1						1
Port Elizabeth, South Africa					1				1
Portland Point, Vancouver's Island, British America						1			1
Port Maria, Jamaica	1								1
Port Natal, South Africa					2	1			3
Port Natal, Brazil									1
Porto Rico, West Indies			1						1
Porto Rico (reef near), West Indies							1		1
Progreso, Mexico		1							1
Prospect, Nova Scotia		1					1		2
Puerto Cortes (8 miles from), Honduras Bay, Central America						1			1
Puntas Arenas (18 miles south of), Costa Rica					1				1
Quoin Point, Cape of Good Hope, Africa		1							1
Quonata, Honduras, Central America				1					1
Rhio Straits, near Singapore, Malay Peninsula, East Indies						1			1
Rio de Contas (mouth of), Brazil					1				1
Rio Grande River, Mexico							1		1
Rio Grande do Sul Bar, Brazil						1			1
Rocas Reef (125 miles northwest of Cape St. Roque), Brazil	1								1
Rocky Reef, Point Carlisle Bay, Jamaica				1					1
Round Reef, Saint John Harbor, New Brunswick						1			1
Russell's Point, Cape Breton Island						1			1
Rustico Harbor, Prince Edward Island						1			1
Sable Island, Nova Scotia		2							2
Saint Antonio, Brazil						1			1
Saint Christopher Island, British West Indies					1				1
Saint George, New Brunswick	1								1
Saint George Bay, Newfoundland		1							1
Saint George's Bay, Syria						1			1
Saint John, New Brunswick						1			1

TABLE 66.—List of places where American vessels have Stranded in FOREIGN WATERS, &c.—Continued.

Name of place.	Fiscal year ending June 30—								Total
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Saint John's, Porto Rico, West Indies.....			1						1
Saint Mary's Bay, Nova Scotia.....	1								1
Saint Pierre, Newfoundland.....			1						1
Saint Thomas, West Indies.....			3				1		4
Sand Island (island near), Straits of Formosa.....					1				1
San Antonio Light (15 miles east of), Cuba.....				2					2
San Blas, Mexico.....								1	1
San Felipe Keys, Cuba.....				1		1			2
San Geronimo Island, Lower California.....				1					1
San José de Guatemala.....		1							1
San Juan Island, Brazil.....								1	1
San Juan, Vancouver's Island, British America.....						1			1
San Lucas Island, Gulf of Mexico.....								1	1
San Quentin Harbor, Lower California.....				1					1
San Salvador, West Indies.....				1					1
Sanger Island, Hoogly River, British India.....			1						1
Santa Anna, Mexico.....					3				3
Santa Catalina Island, Pacific Ocean.....					1				1
Santiago de Cuba, West Indies.....					1				1
Saona Island, Hayti, West Indies.....			1		1				2
Saracen Shoal, coast of Borneo.....							1		1
Scarborough Shoals, China Sea.....	1								1
Scilly Island, South Pacific.....					1				1
Seal Shoal, Newfoundland.....			1						1
Serrana Keys, Central America.....								1	1
Serranilla Bank, Caribbean Sea.....			1					1	2
Seven Stones (off Land's End), England.....				1					1
Shag Harbor, Nova Scotia.....					1				1
Shark's Point (mouth of Congo River), Africa.....			1						1
Sheelee River (mouth of), Nova Scotia.....						1			1
Shelburne (near Red Head), Nova Scotia.....								1	1
Shoal Bay, Newfoundland.....				1					1
Sicily Island (near Avola) Italy.....	1								1
Smith's Island, Port Hood Harbor, Cape Breton Island.....				2					2
Soerabaya, Java.....								1	1
Soledad Lagoon, Lower California.....				1					1
Stockport, England.....	1	1							2
Stone Key, Cuba.....							1		1
Straits of Georgia, British North America.....					2				2
Straits of Magellan, South America.....		1							1
Straits of Sunda, East Indies.....								1	1
Sumatra (Gasper Straits).....			1						1
Surinam, Dutch Guiana, South America.....							1		1
Suvarrow Reef, South Pacific.....			1						1
Swallow Reef, China Sea.....				1					1
Swansea, Wales.....						1			1
Tabasco Bar, Mexico.....							1		1
Talbot's Passage, Cape Horn.....		1							1
Tallock Reef, Carimata Straits, East Indies.....							1		1
Tamaulipas, Mexico.....								1	1
Taylor's Bank, Mersey River, England.....		1							1
Tecumshin, Wexford, Ireland.....					1				1
Thrum-Cap Shoal, Nova Scotia.....								1	1
Tequish Island, Prince Edward Island.....						1			1
Terra del Fuego, South America.....						1		1	2
Terschelling Light, Netherlands.....			1						1
Tonalá Bar, Mexico.....	1	1		1				1	4
Tongue Island, English Channel.....		1							1
Torkeo, Sweden.....		1							1
Trackio, Nova Scotia.....					1				1
Trial Island, British Columbia.....		1							1
Trinidad, West Indies.....				1					1
Tristan d'Acunha Island, South Atlantic.....						1			1
Truxillo, Honduras, Central America.....				1					1
Tusket Island, Nova Scotia.....	1				1				2
Tuspan, Mexico.....						1			1
Tuspan Reef, Mexico.....							1	1	2
Tuspan River Bar, Mexico.....	1	1		1			1		4
Two Rivers, Nova Scotia.....					1				1
Tyaartoos Island, Barclay Sound, British Columbia.....	1								1
Unknown Reef, latitude 59° south, longitude 107° east.....						1			1
Valdes Peninsula, Patagonia.....	1								1
Vancouver's Island, British Columbia.....							1		1
Vancouver's Island (12 miles east of Cape Beale), British Columbia.....							1		1
Verdon Roads (near Bordeaux), France.....		1							1
Victoria Harbor, British Columbia.....			1						1

TABLE 66.—*List of places where American vessels have Stranded in FOREIGN WATERS, &c.—Continued.*

Name of place.	Fiscal year ending June 30—								Total.
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	
Walney Island, England.....				1					1
Wentworth Creek, Nova Scotia.....						1	1		2
White Head, Nova Scotia.....					1				1
Wicklow Bay, Ireland.....			1						1
Woahoo Island, Sandwich Islands.....						1			1
Wood Creek, New Brunswick.....						1			1
Wood's Island, Bay of Islands, British America.....	1								1
Woody Island, Cape Breton, British America.....	1								1
Yabucca, Porto Rico.....			1						1
Yarmouth, Nova Scotia.....		1	1						2
Zanzibar, Africa.....			1						1

REPORTS
OF THE
BOARD ON LIFE-SAVING APPLIANCES.

**LETTER OF THE SECRETARY OF THE TREASURY CONSTITUTING THE
BOARD ON LIFE-SAVING APPLIANCES.**

**TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, D. C., Jan. 3, 1882.**

WILLIAM R. GARRISON, Esq.,
New York City.

Capt. J. H. MERRYMAN,
Inspector Life-Saving Stations.

Capt. D. A. LYLE,
Ordnance Department, U. S. A.

Lieut. T. D. WALKER,
Assistant Inspector Life-Saving Stations.

BENJAMIN C. SPARROW, Esq.,
Superintendent Second Life-Saving District.

DAVID P. DOBBINS, Esq.,
Superintendent Ninth Life-Saving District.

JOHN C. PATTERSON, Esq.,
Keeper Station No. 1, Fourth District.

GENTLEMEN: Upon the request and recommendation of the General Superintendent of the Life-Saving Service, with a view to compliance with the terms of section 7 of the act of June 18, 1878, entitled "An act to organize the Life-Saving Service," which makes it a part of his duty "to cause to be properly investigated all plans, devices, and inventions for the improvement of life-saving apparatus for use at stations, which may appear to be meritorious and available," you are hereby constituted a Board whose duty it shall be to examine and test, so far as practicable, all such plans, devices, and inventions as may be submitted to it from time to time by the General Superintendent, and to make detailed reports of the result of its investigations accompanied with recommendations for his information and assistance in determining the proper action to be taken in each case.

It is understood that the duties of the Board will not include action upon devices and methods for the hospital uses of the stations, as the Marine Hospital Service is available for any required examination in regard to these, nor upon plans, devices, or inventions to be used on shipboard, these being within the province of another branch of the Government.

While no compensation for the services rendered by the Board can

be made, all traveling and other expenses incurred under authority previously obtained from the General Superintendent will be reimbursed.

It is important that the first meeting of the Board shall take place at as early a date as convenient, as there are already on hand several matters to be referred to it, and the president of the Board is hereby authorized to convene its members as soon as practicable, giving the General Superintendent early notice of the time and place of assembly.

At this meeting the first business of the Board will be to formulate rules and regulations for its own government, and for the government of parties whose plans and devices may be presented to it, which rules will be submitted to the General Superintendent for approval.

Mr. Garrison will act as president of the Board, and Lieutenant Walker as recorder.

The two Boards heretofore existing under the authority of letters of the Secretary of the Treasury, dated respectively April 19, and May 27, 1879, are dissolved and their functions are hereby united in those of the present organization.

Very respectfully,

CHARLES J. FOLGER,
Secretary.

LETTER OF TRANSMITTAL.

OFFICE OF THE INSPECTOR OF
UNITED STATES LIFE-SAVING SERVICE,
No. 3 Bowling Green, New York, February 11, 1882.

SIR: I have the honor to transmit herewith report of the Board on Life-Saving Appliances, &c., constituted by Department letter, dated January 3, 1882, together with accompanying papers.

Very respectfully,

WM. R. GARRISON,
President of the Board.

SUMNER I. KIMBALL, Esq.,
General Superintendent United States Life-Saving Service.

REPORT.

FEBRUARY MEETING, 1882.

BOARD ON LIFE-SAVING APPLIANCES,
No. 3 Bowling Green, New York, February 9, 1882.

I.—PREAMBLE.

A Board for the examination of plans, devices, and inventions relating to life-saving apparatus to be used from the shore, consisting of William R. Garrison, esq., president; Capt. J. H. Merryman, U. S. R. M., inspector of life-saving stations; Capt. D. A. Lyle, Ordnance Department, U. S. A.; Lieut. T. D. Walker, U. S. R. M., assistant inspector of life-saving stations, recorder; Superintendent B. C. Sparrow, second life-saving district; Superintendent David P. Dobbins, ninth life-saving district, and Keeper John C. Patterson, Station No. 1, fourth life-saving district, was constituted by the honorable Secretary of the Treasury, upon the request and recommendation of the General Superintendent of the Life-Saving Service, under department letter of January 3, 1882, for the purpose of examining and testing, as far as practicable, all such plans, devices, and inventions as may be submitted from time to time by the General Superintendent.

II.—DOCKET.

CLASS I.—*Wreck ordnance.*

1. Galvanized sheet-iron faking boxes.
2. German rocket systems.
3. English Boxer rocket system.
4. Vent punch and vent gimlet for Lyle gun.
5. W. W. Gibbs' model gun and carriage.

CLASS II.—*Miscellaneous appliances.*

1. D. P. Dobbins' surf-boat.
2. D. Ottinger's sand wheels.
3. R. M. Fryer's buoyant propeller ship (presented by R. S. Stone).
4. Williston and Lucas' "process of annealing glass."
5. Samuel Jackson's "self-igniting fuse and illuminating light."
6. F. M. Shields' life-preserving rolling ship.
7. J. H. Hatton's life-boat.
8. J. L. Bryant's double life-boat.
9. F. S. Allen's life-raft.
10. Telesford St. Peter's surf-boat.
11. W. F. Coston's night signal.
12. J. H. Turner's improvement in surf-boats.
13. Geo. E. McConnell's improved drogue for boats.
14. R. B. Forbes, use of oil on rough seas.

15. C. A. McLellan's tripod and traveler-block.
16. J. M. Jones' hand-cart.
17. A. T. Boone's life-boat to be propelled by compressed air.
18. Coston's new beach light (signal and holder).
19. Uniform for life-saving crews.

III.—COMMITTEES.

I.—Committees appointed.

1. On galvanized sheet-iron faking boxes: Capt. D. A. Lyle, Keeper J. C. Patterson.
2. On Coston's new beach light (signal and holder): Capt. D. A. Lyle, Superintendent D. P. Dobbins, Keeper J. C. Patterson.
3. On German rocket systems: Capt. D. A. Lyle, Keeper J. C. Patterson.
4. On English Boxer rocket systems: Capt. D. A. Lyle, Keeper J. C. Patterson.
5. On Jones's improved hand-cart: Capt. D. A. Lyle, Superintendent D. P. Dobbins, Keeper J. C. Patterson.
6. On use of oil on rough seas (Forbes): Superintendent B. C. Sparrow.
7. On Jackson's self-igniting fuses and illuminating lights: Capt. D. A. Lyle, Keeper J. C. Patterson.
8. On W. F. Coston's night signal: Capt. J. H. Merryman.
9. On Williston and Lucas' process for annealing glass for lanterns: Capt. J. H. Merryman.
10. On uniform for life-saving crews: Committee of full Board.

II.—Committees continued.

1. On galvanized sheet-iron faking boxes.
2. On German rocket system.
3. On Boxer rocket system.

III.—Committees' reports.

1. On Coston's new beach light (signal and holder), before Board on Wreck Ordnance.

IV.—PRESENCE OF EXHIBITORS.

Inventors and exhibitors were allowed to be present before the Board, for the purpose of explaining their devices.

V.—RESULTS.

1. *F. M. Shields' "life-preserving rolling ship."*—This invention was found to be without the province of the Board, and calls for no action on its part.

2. *J. H. Hatton's life-boats.*—Models of these life-boats were submitted to the Board, together with a general description. After careful consideration, the Board deemed that these life-boats were not adapted to the wants of the life-saving service.

3. *Frederick S. Allen's life-saving raft.*—This apparatus is intended for use from vessels at sea.

The invention does not come within the purview of this Board, which takes cognizance of those devices to be used from the shore alone. The matter should properly be brought before another department of the Government.

4. *Telesford St. Peter's improved surf-boat*.—A small model of this boat was submitted to the Board with a description. From the information before it the Board does not feel authorized to recommend either the adoption of this boat or that one be built at the expense of the Government. The Board does not doubt but that this form of boat may be advantageously used by those familiar with it for a lifetime, but hesitates to recommend the adoption of a boat that might not prove satisfactory or efficient throughout the service.

5. *Lieut. George E. McConnell's improved drogue for surf-boats*.—A model was submitted for the consideration of the Board. It is the opinion of the Board that the entire absence of metallic rings is preferable for the uses of the service. The Board would suggest that a rope ring be substituted for the metal one now in use.

6. *W. W. Gibbs' gun, projectile, and carriage for life-saving purposes*.—A small model of this device was submitted to the Board with a very imperfect description. After careful consideration the Board is constrained to believe that this device is more especially designed for saving life at fires, or where short ranges are required. The apparatus is not in a condition to be tested, and since it does not appear to be applicable to the uses of the service the Board does not recommend its further consideration.

7. *Fryer's buoyant propeller ship*.—The Board directs that the exhibitor, Mr. Stone, be notified to submit a working model to the Board for trial.

8. *A. T. Boone's method of life-boat propulsion*.—No model or specifications being before the Board, it was directed that the General Superintendent be advised accordingly, and that he be requested to procure from Mr. Boone such models and specifications as will enable the Board to examine and pass upon the invention.

9. *J. L. Bryant's double life-boat*.—The Board after carefully considering the subject resolved to adopt the conclusions of the Board on Miscellaneous Appliances, before which this boat was first presented, and further that Captain Bryant be informed that when a boat properly equipped for service is presented to the Board it will be tested and a report made upon its merits.

10. *J. H. Turner's "non-broaching to" attachment for boats*.—The Board understands that this subject will be submitted in a new form, and suspends action until the matter is submitted in proper form.

11. *Coston's new beach light (signal and holder)*.—The subject of signals having been brought before the Board again by Mr. Coston, the Board does not consider it expedient to take definite action upon the subject at this time; therefore the consideration of the signal light and holder presented to the former Board on Wreck Ordnance was referred to the Committee on Jackson's Signals.

12. *D. P. Dobbins' self-righting surf-boat*.—As no model of this boat was submitted, the Board deferred action upon it until such time as a boat can be prepared for trial.

13. *D. Ottinger's sand wheel*.—The Board recognizes the fact that there is merit in the device presented by Captain Ottinger and suggests that a more thorough trial be made under conditions different from those which existed at the time of the previous experiments, in consideration

of the fact that the patent for the device is the property of the Government.

14. *C. H. McLellan's tripod and traveler-block for breeches-buoy apparatus.*—Samples of these devices were submitted to the Board. Trials have been made with these articles which have proved satisfactory.

15. *Vent punch and vent gimlet for Lyle gun.*—Samples of these implements were submitted to the Board and found to be of sufficient length and size to be used for removing ordinary obstructions from the vents of the Lyle guns now in service.

VI.—OPINION.

1. The Board is of the opinion that the McLellan tripod and traveler-block, for the breeches-buoy apparatus, are adapted to the needs of the service.

2. The Board is of the opinion that the vent punch and vent gimlet made by the Ordnance Department, U. S. A., is adapted to the needs of the Life-Saving Service.

VII.—RECOMMENDATIONS.

1. The Board respectfully recommends that the General Superintendent of the Life-Saving Service procure for that service such number of the McLellan tripods as may be necessary to furnish all the stations of the service with said tripod.

2. The Board respectfully recommends that the General Superintendent of the Life-Saving Service procure such number of the McLellan malleable iron traveler-blocks, for breeches-buoys, as may be necessary to supply the stations on the sea-coast. The Board does not feel authorized to recommend the adoption of this device for use upon the lake coasts at this time.

3. The Board respectfully recommends that the vent punch and vent gimlet submitted to the Board by Capt. D. A. Lyle, Ordnance Department, U. S. A., be procured for issue to the life-saving stations for use in clearing obstructions from the vents of the Lyle guns now in service.

VIII.—UNFINISHED BUSINESS.

CLASS I.—*Wreck ordnance.*

1. Galvanized sheet-iron faking boxes.
2. German rocket systems.
3. English Boxer rocket system.

CLASS II.—*Miscellaneous appliances.*

1. Dobbins' surf-boat (self-righting).
2. Ottinger's sand wheel.
3. R. M. Fryer's "buoyant propeller-ship."
4. Williston and Lucas' "process for annealing glass" for lanterns.
5. S. Jackson's "self-igniting fuses and illuminating lights."
6. J. L. Bryant's double life-boats.
7. W. F. Coston's night signals.
8. R. B. Forbes, "Use of oil on rough seas."
9. J. M. Jones' hand-cart.
10. A. T. Boone's life-boat to be propelled by compressed air.
11. Uniform for life-saving crews.

ADDENDA.

I.—Daily record of proceedings of Board.

II.—Report of committee on Coston's new beach-light (signal and holder).

III.—Description and drawing of Lieutenant McLellan's tripod and traveler-block for breeches-buoy.

IV.—Description and drawings of vent punch and vent gimlet for Lyle guns.

V.—The following letters and papers submitted to the Board by the General Superintendent United States Life-Saving Service, viz:

1. F. M. Shields, on life-preserving rolling ship.
2. J. H. Hatton's life-boats (and models).
3. Fred. S. Allen's life-rafts for vessels.
4. Telesford St. Peter's improved surf-boat (and model).
5. Lieut. G. E. McConnell's improved drogue for boats (and model).
6. W. W. Gibbs' gun, projectile, and carriage (and model).
7. A. T. Boone, method of life-boat propulsion.
8. R. C. Stone, Fryer's buoyant propeller-ship.
9. Lieut. C. H. McLellan's tripod and traveler-block for breeches-buoy apparatus.
10. Capt. D. A. Lyle, U. S. A., vent punch and vent gimlet (two samples).
11. John L. Bryant, double life-boat (model retained).

WM. R. GARRISON,
President of the Board.

J. H. MERRYMAN,
Captain, U. S. R. M.

D. A. LYLE,
Captain of Ordnance, U. S. A.

THOMAS D. WALKER,
Lieutenant, U. S. R. M., Recorder.

B. C. SPARROW,
Superintendent Second Life-Saving District.

D. P. DOBBINS,
Superintendent Ninth Life-Saving District.

JOHN C. PATTERSON,
Keeper Station No. 1, Fourth District.

There being no further business before it the Board adjourned, subject to the call of the President.

WM. R. GARRISON,
President of the Board.

THOMAS D. WALKER,
Lieutenant, U. S. R. M., Recorder.

A D D E N D A .

I.

JOURNAL OF THE BOARD FOR THE EXAMINATION OF PLANS, DEVICES, AND INVENTIONS DESIGNED FOR USE AT LIFE-SAVING STATIONS.

NO. 3 BOWLING GREEN, NEW YORK, *February 8, 1882.*

In conformity with the order of the Secretary of the Treasury, dated January 3, 1882 (S. I. K.), constituting a Board for the examination of all such plans, devices, and inventions as may be submitted to it, from time to time, by the General Superintendent with the view of determining the applicability of the same to the uses of the Life-Saving Service in establishing communication from the shore with stranded vessels, the said Board, consisting of Mr. William R. Garrison, President; Capt. J. H. Merryman, U. S. R. M.; Capt. D. A. Lyle, Ordnance-Department, U. S. A.; Lieut. T. D. Walker, U. S. R. M., Recorder; Superintendent B. C. Sparrow, U. S. L. S. S.; Superintendent D. P. Dobbins, U. S. L. S. S.; Keeper J. C. Patterson, jr., U. S. L. S. S., assembled at No. 3 Bowling Green, New York City, at 12 o'clock noon, on the 8th day of February, 1882, pursuant to the call of the president dated January 30, 1882.

The Board convened at the hour named, all the members being present.

The recorder read the order of the Secretary of the Treasury constituting the Board.

The president then announced that the consideration of rules, &c., to govern the future action of the Board would now be in order.

Capt. D. A. Lyle submitted a synopsis of rules and regulations for the government of the Board in its deliberations, &c., and offered the same for adoption, together with an abstract or form of report upon such devices as may come under consideration.

The proposed rules were discussed and adopted by the unanimous vote of the Board, as follows:

Rules and regulations adopted by the Board for the examination of plans, devices, and inventions designed for use at United States life-saving stations.

The devices, inventions, and apparatus submitted for the action of the Board will be divided into two general classes.

CLASS I.—Wreck ordnance.

CLASS II.—Miscellaneous apparatus.

SUBJECTS TO BE CONSIDERED BY THE BOARD.

CLASS I.—Wreck ordnance.

1. Mortars.

Guns and their appurtenances.

3. Rockets.
4. Line-carrying projectiles.
5. Shot lines.
6. Faking boxes.
7. Powder and other ammunition.
8. Equipments, implements, &c., connected with wreck ordnance.

CLASS II.—*Miscellaneous apparatus.*

1. Surf-boats.
2. Life-boats.
3. Life-rafts.
4. Life-cars.
5. Life-preservers.
6. Life-belts.
7. Patrol lanterns.
8. Signals.
9. Working-lines.
10. Blocks and tackles.
11. Sand anchors.
12. Boat wagons, and devices for transportation of apparatus.
13. Such other matters as may be referred to the Board by the General Superintendent of the U. S. Life-Saving Service.

I. The Board will meet at the call of the president for examination and discussion of such devices or apparatus as may be referred to it by the General Superintendent of the Life-Saving Service.

II. A majority of the Board shall constitute a quorum at any properly called meeting.

III. The province of the Board is to examine, test, and report upon such devices as may be referred to it by the General Superintendent, and it will not enter into protracted discussions with inventors or their agents as to the principles involved in methods of improvements in plans submitted or how defects may be remedied.

IV. In order to expedite the business of the Board and prevent unnecessary expense to the Government, the president of the Board may at his discretion refer for special investigation any device, invention, or subject to a committee consisting of one or more members of the Board.

Such committee, after completion of the duties assigned to it, shall submit a written report to the full Board.

V. Due notice of meetings of the Board will be sent to persons whose inventions have been referred to it.

GENERAL REGULATIONS.

I. No person will be admitted to the meetings of the Board, to the experimental trials, or to the firing ground, except the agents or inventors of the apparatus under discussion or trial.

II. All experiments and trials will be conducted under the immediate supervision of the Board and by its employés alone. Inventors or exhibitors may have the privilege of displaying the apparatus if desired, and of having the performance of the same noted in the record. Any gun, rocket, or device in which explosives are used to be first fired with at least three rounds of the maximum charge by its exhibitor, as a safety test, before submission to the Board.

III. The handling of the apparatus by agents or inventors at any time after being submitted to the Board is forbidden, except in the case of the display test above noted.

IV. Any apparatus, models, or plans which have been submitted to the Board and entered upon the record will remain in the possession of the Board for such time as may be necessary for the completion of the examination, of the trials, and of the final report upon the same.

V. All persons desiring to submit devices or inventions for the action of the Board will be required to forward their applications to the General Superintendent in writing, embracing, in detail, the following points in the order named:

First. Name or designation of device to be submitted.

Second. Whether or not covered by caveat or letters patent.

Third. Nomenclature of each separate part of the device, stated in list form, with reference letters corresponding to letters on accompanying drawing.

Fourth. Detailed description of device.

Fifth. Kinds and qualities of materials used.

Sixth. Dimensions of all parts.

Seventh. Weights of principal parts and total weight of apparatus.

Eighth. Price at which device or apparatus will be furnished to the Government.

Ninth. Construction, stating method of manufacture or fabrication of each device in detail.

Tenth. Description of method of using the apparatus in actual service.

Eleventh. Describe action of projectiles and line when used.

Twelfth. Accurate drawings must accompany all applications. Full-sized drawings preferred, but drawings to scale of very large parts will be accepted.

Thirteenth. Claims of inventors or exhibitors for their devices will be set forth, and in numerical order.

Fourteenth. Letters of transmittal addressed to the General Superintendent of the Life-Saving Service, Treasury Department, Washington, D. C., will accompany above descriptions, drawings, &c.

VI. All apparatus connected with any device or invention will be delivered at the expense of the agent or inventor of same at such point and at such time as the Board may direct, and returned at the expense of said agent or inventor when no longer required by the Board.

VII. It is to be understood that the Government is to incur no expense for ammunition or other articles used in the actual trials or tests of any apparatus presented for consideration.

Adopted at a meeting of the Board, February 8, 1882.

WM. R. GARRISON,

President.

THOMAS D. WALKER,

Recorder.

After the adoption of the foregoing rules, &c., the recorder read the minutes of the last meeting of the Board on Wreck Ordnance, and of the Board on Miscellaneous Appliances, the following unfinished business from the Board on Wreck Ordnance being then transferred to the docket of the present Board, viz:

I.—Galvanized sheet-iron faking boxes.

II.—Coston's new beach light (signal and holder).

III.—German rocket system.

IV.—English Boxer rocket system.

The following unfinished business from the Board on Miscellaneous Appliances was also transferred to the docket of the Board, viz:

Capt. D. Ottinger's sand-wheel.

Letters from the General Superintendent of the Life-Saving Service, referring the subjoined list of devices, inventions, &c., for the consideration of the Board, were then read:

Dobbins' surf-boat.

Ottinger's sand-wheel.

Lyle's vent punch and vent gimlet.

Fryer's buoyant propeller ship.

Williston & Lucas' process for annealing glass.

Jackson's self-igniting fuse and illuminating light.

Shields' life-preserving rolling ship.

Hatton's life-boat.

Gibbs' gun and carriage.

Bryant's double life-boat.

Allen's life-raft.

St. Peter's Macinac surf-boat.

Coston's night-signal.

Turner's improvement in surf-boats.

McConnell's improved drogue for boats.

Forbes. Recommending experiments with oil in smoothing rough seas.

McLellan's tripod and traveler-block.

Jones' hand-cart.

Boone's boat propulsion by compressed air.

The merits of Allen's life-raft were then discussed by the Board.

This apparatus is intended for use on vessels at sea and does not come within the province of the Board. It was therefore ordered to be returned to the General Superintendent with that indorsement.

Capt. R. B. Forbes' letter suggesting further experiments in the use of oil for smoothing rough and broken water, was referred to a committee consisting of Superintendent B. C. Sparrow.

Samuel Jackson's self-igniting fuses and illuminating light:

Mr. Jackson appeared in person and explained his invention.

The subject was referred to a committee consisting of Captain Lyle and Keeper Patterson.

William F. Coston's night-signal:

Mr. Coston appeared in person before the Board in advocacy of the adoption of his invention, and for the purpose of explaining its merits.

It was referred to a committee consisting of Capt. J. H. Merryman for report.

Fryer's buoyant propeller ship:

Mr. R. C. Stone, secretary of the Fryer Navigation Company, appeared for the inventor and explained its design, &c.

After due consideration, it was voted by the Board that Mr. Stone be notified that upon presentation of a working model of the Fryer buoyant propeller ship it can then be more intelligently examined and reported upon.

Lieut. C. H. McLellan's tripod and traveler-block:

Lieutenant McLellan appeared in person and explained the merits of his inventions.

After due consideration of the same, it was resolved by a vote of the Board that as these articles are of such apparent value, they be recom-

mended to the General Superintendent of the Life-Saving Service for adoption.

J. H. Hatton's patent life-boats :

Models of the same and a general description thereof were explained by the inventor.

After discussing the merits of the boats, it was resolved that in the opinion of the Board the use of the invention presented by Mr. Hatton is impracticable in the Life-Saving Service, and that the Board so report to the General Superintendent.

J. M. Jones' improved hand-cart :

Drawings of the same were explained by Mr. Jones, in person, his model (full size) being now in the museum of the Life-Saving Service at Washington.

It was moved that the subject be referred to a committee of three members of the Board for report, and that the President be directed to request the General Superintendent to forward the cart in his possession to Sandy Hook, N. J., for proper test of its merits.

The motion was adopted, and the following committee appointed, viz, Captain Lyle, Superintendent Dobbins, and Keeper Patterson.

Williston & Lucas' method of annealing glass for lanterns, &c.:

Referred to Captain Merryman, as a committee, for examination and report, after an explanation of the properties imparted to glass by the Williston & Lucas' method had been made by their agent, Mr. Sanborn.

Telesford St. Peter's improved surf-boat :

A small model of this boat, with a description thereof, was submitted to the Board.

It was voted, as the unanimous opinion of the Board, that from a consideration of the model, as presented, the Board is unable to recommend the boat for adoption by the Life-Saving Service.

F. M. Shields' life-preserving rolling ship :

This invention not being within the province of the Board, it was directed that the papers be returned to the General Superintendent of the Life-Saving Service with that information.

Lient. George E. McConnell's improved drogue for surf-boats :

After discussing the merits of the model accompanying Lieutenant McConnell's letter, it was voted that the same be returned to the General Superintendent with an expression of the opinion of the Board that the entire absence of the metallic ring in such devices is preferable, one of rope being considered better.

J. H. Turner's "non-broaching-to" attachment for boats :

The Board having received intimation that this invention will be placed before it in different form, its consideration was postponed.

No model has been presented.

W. W. Gibbs' gun, projectile, and carriage (life-saving and fire-escape device) was then carefully examined and discussed by the Board, and the result of its examination embodied in the general report.

At 4 P. M. the Board adjourned, to meet to-morrow, the 9th instant, at 10 A. M.

THOMAS D. WALKER,
Recorder.

THURSDAY, *February 9*, 1882.

The Board assembled at 10 A. M., as per adjournment. Present, all the members.

The minutes of yesterday's session were read and adopted.

Capt. J. L. Bryant's double life-boat was then considered.

Captain Bryant appeared and explained the qualities claimed for his double boat, a model to scale of one inch to the foot with drawings being presented for that purpose. Captain Bryant stated that a failure on the part of the contractor who was to build the full size double boat for trial prevented him from submitting it to the Board, as he had proposed after the last meeting of the Board on Miscellaneous Appliances, &c.

He stated that he can build a boat on his model, 27 feet in length and weighing 1,000 pounds, for the sum of \$700.

This boat was before the Board on Miscellaneous Appliances at its meeting, October 28, 1880. Mr. Bryant informed that Board that he would place a boat for trial at the disposal of the service, free of expense to the Government. He has been unable so far to have such a boat constructed, therefore the Board postponed further consideration of the subject until a properly-equipped boat shall be submitted for trial.

Supt. D. P. Dobbins' self-righting surf-boat:

As no model of this boat was submitted to the Board, its consideration was postponed.

A vent gimlet and a vent punch, as made by the Ordnance Department, U. S. Army:

Upon hearing the uses of these devices properly explained by Captain Lyle, the Board decided to approve and recommend the same to the General Superintendent for adoption.

For description, see accompanying report of Captain Lyle.

Capt. Douglass Ottinger's sand-wheel (model and specifications) was deferred for future action. The Board recognizes the fact that there is merit in the device presented by Captain Ottinger, and suggests that a more thorough trial be made under conditions different from those which existed at the time of the previous experiment.

A. T. Boone, life-boat propulsion by compressed air:

No model or specifications of this invention being presented, it was ordered that the General Superintendent be advised accordingly, and requested to so notify Mr. Boone.

A letter from the General Superintendent of the Life-Saving Service, calling attention to the propriety of prescribing a uniform for the crews of life-saving stations, and requesting the Board to consider the subject and report upon it, was then read.

The subject was referred to a committee of the entire Board for consideration and report at its next meeting.

A letter from Mr. R. C. Stone was received and read, and directed to be answered by the recorder.

A letter from Mr. J. M. Jones, advising the Board that he will furnish further information concerning the working of his improved hand-cart, was received, read, and placed on file.

The committees of the Board on Wreck Ordnance; upon Sheet-Iron

Faking Boxes, German Rocket Systems, and English Boxer Rocket System, were continued.

At 12.45 P. M. the Board took a recess until 3 P. M.

The Board reassembled at 2.45 P. M. Present, all the members.

The committee on Coston's beach light and signal holder submitted a report thereon, giving the results of trials with the same.

The report was adopted and ordered to be appended to the report of the Board.

The committee was then discharged. In consideration of the fact that Mr. Coston has submitted additional signals, further action was deferred until the same can be compared with other signals (Jackson's) also before the Board.

The Board then proceeded to the consideration of its general report. Upon completing the same, it was read and signed by all the members.

The Board then adjourned, subject to the call of the president.

THOMAS D. WALKER,
Lieutenant U. S. R. M., Recorder.

II.

COMMITTEE REPORT.

No. 3 BOWLING GREEN, NEW YORK,
February 8, 1882.

WILLIAM R. GARRISON, Esq.,

President of Board on Life-Saving Apparatus:

SIR: Your committee has the honor to make the following report upon the Coston new beach-light signal and holder:

Four (4) of these beach-light signals, two of each size, and one holder were submitted to the committee for trial with the following results:

1. The smaller sized light burned $12\frac{1}{2}$ minutes.
2. The larger sized light burned $15\frac{1}{2}$ minutes.
3. The holder proved satisfactory as far as tested.

These lights are more expensive than the beach-light now in use and burn a much shorter time. They showed, however, an excellent light while burning.

D. A. LYLE,
Captain of Ordnance, U. S. A.

D. P. DOBBINS,
Superintendent Ninth District, L. S. S.

JOHN C. PATTERSON,
Keeper Station No. 1, Fourth District, L. S. S.
Committee.

III.

McLELLAN'S TRAVELER-BLOCK FOR BREECHES-BUOY.

(Plate I.)

UNITED STATES LIFE-SAVING SERVICE,
Bay Shore, New York, November 18, 1881.

Capt. J. H. MERRYMAN, U. S. R. M.,
*Inspector U. S. Life-Saving Stations,
No. 3 Bowling Green, New York:*

SIR: I have the honor to submit herewith a drawing of a traveler-block for the breeches-buoy, which I have tested at several stations during my recent trip through this district.

Its object is to save time and labor in the use of the breeches-buoy apparatus.

It is made of galvanized malleable iron, with two 3-inch self-lubricating composition sheaves. One side of the block is made to open one inch below the sheaves, the movable piece being arranged with strong hinges and a self-fastening clasp. When rigging the apparatus with the block now in use, before sending off the hawser, it is necessary to take the tally-board No. 2 from, and reeve the hawser through, the breeches-buoy block, make fast the tally-board again to the hawser, and overhaul through the block sufficient hawser to reach the wreck, which requires the service of two men, the keeper and No. 5. In addition to this labor, this method necessarily brings extra wear upon the block, as it rests upon the sand while hauling the hawser through it, and the steady stream of sand carried through on the hawser cuts into the sheaves and pins.

When unrigging the apparatus, the same labor has to be performed with a corresponding wear upon the block.

When practicing the crews or working a wreck, there is about as much wear brought upon the breeches-buoy block in reeving and unreeving the hawser as in landing the crew.

With my improved block I propose to proceed as follows:

After the whip is sent off and made fast to the wreck, the hawser, with tally-board No. 2, spliced into it two fathoms from the end (and of course never forgotten), is bent on and sent off directly from the cart.

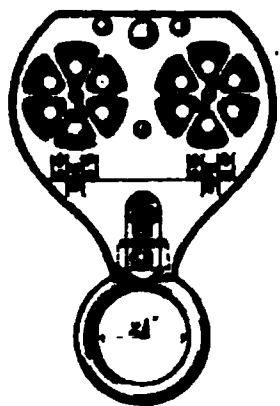
When the hawser is made fast on board, the bight is snatched into the sand-anchor block, the hawser hauled taut as now practiced, but before raising the crotch the breeches-buoy block is snapped upon the hawser, which my improvement upon the block permits, and the ends of the whip bent into it as we now do. After the crew is landed the block can be removed from the hawser, and no wear is brought upon it except when landing the crew.

The block is lighter than the one now in use, and owing to the self-lubricating sheaves travels much easier; on the practicing range one man can haul it ashore, with a man in the buoy, as easy as he can the present rig empty.

With this block, if two were kept at a station, they both could be placed upon the hawser if necessary and connected with a span, and so land two or four at one time. Wherever I have tried the block or shown it to officers of the services they have at once acknowledged its advantages, and keepers and crews have expressed regret when they learned it was not to be left at their station.

LIFE-SAVING APPARATUS,
—
MCLELLAN'S TRAVELER BLOCK,
FOR USE AT
LIFE-SAVING STATIONS,
ON THE
SEA-COAST.
1882.

SIDE VIEW



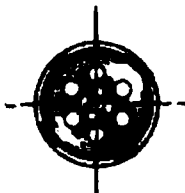
FRONT VIEWS



GROUND PLAN



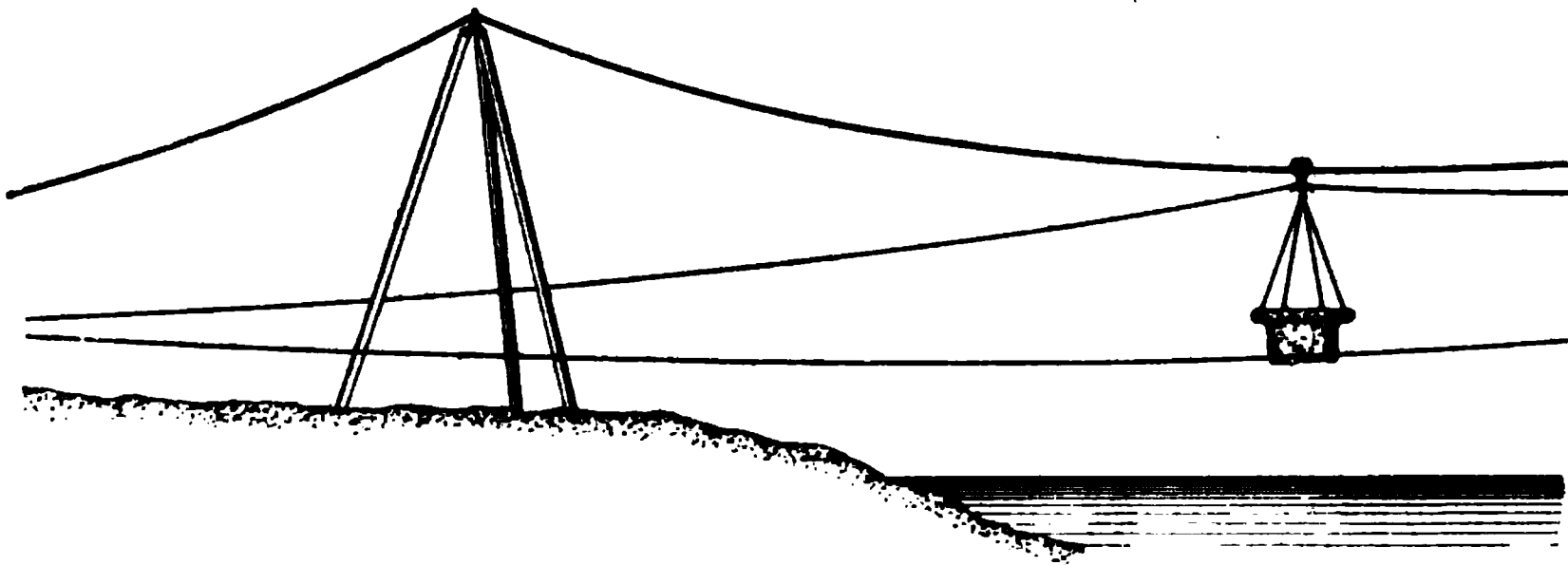
SHEAVE



SECTION



IN OPERATION

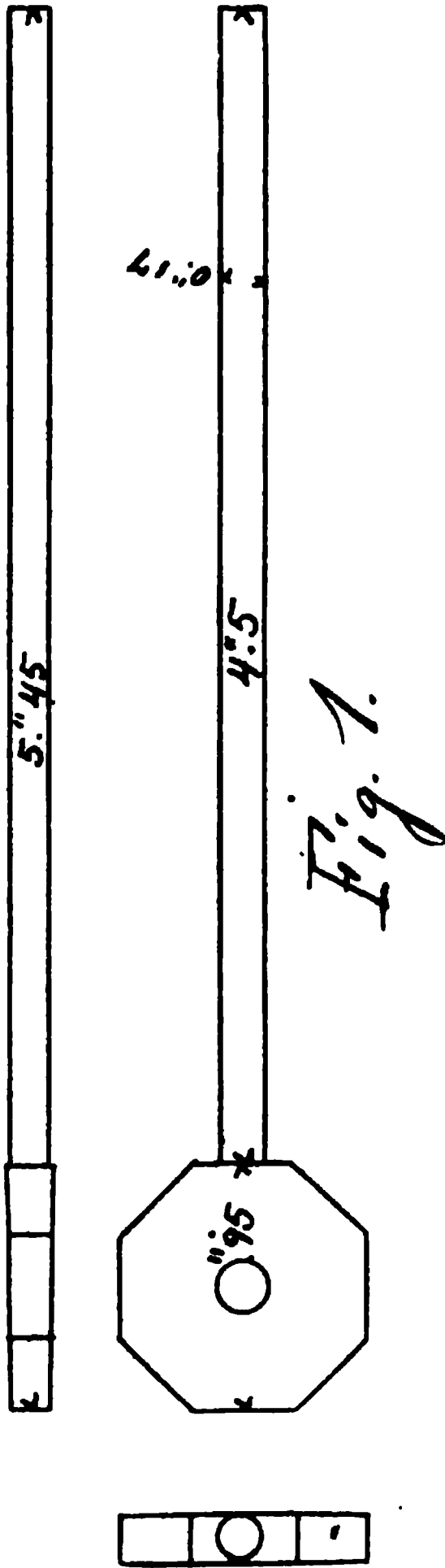
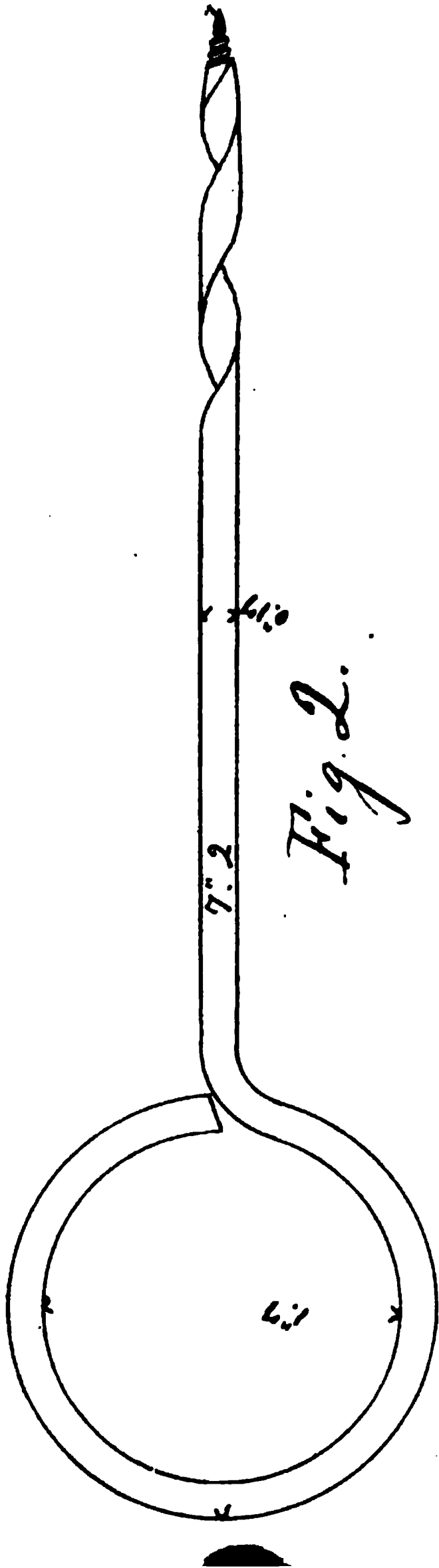


SCALE



LIFE-SAVING APPARATUS.
Vent Punch and Vent Gimlet.
— for —
U. S. Life-Saving Service.

1882.



There is nothing in its construction liable to get out of order, and the clasp can be worked as easy with mittens on as without.

If made of malleable iron with composition sheaves its weight is about five pounds and the cost \$10. The Penfield Block Company, of Lockport, N. Y., and Providence Tool Company, of Providence R. I., both made a block from my drawings, and both bid the same price. The block made by the Providence Tool Company, is the better block in every particular.

I respectfully ask that Superintendent Hunting be authorized to furnish one of these to each station in this district.

I cannot see how the apparatus can be improved so much by so small an outlay as by supplying it with blocks of this description.

Very respectfully, your obedient servant,

C. H. McLELLAN,

Second Lieutenant and Assistant Inspector, Third District.

IV.

DESCRIPTION OF VENT PUNCH AND VENT GIMLET FOR THE LIFE-SAVING SERVICE, MADE BY CAPTAIN D. A. LYLE, ORDNANCE DEPARTMENT.

(Plate II.)

These implements are designed for the removal of ordinary obstructions from the vents of the Lyle life-saving guns now in service.

VENT PUNCH.

Material.—This instrument is made from cast-steel bars, 1 by $\frac{3}{8}$ inch in cross-section.

Fabrication.—The punch is forged in steel dies and then ground to size upon an emery wheel. It is finished upon a buffing-wheel and then tempered.

	Inches.
Dimensions. —Total length	5.45
Body—Length	4.50
Diameter	0.17
Head—Hexagonal:	
Length of sides	0.4
Distance between opposite sides	0.95
Thickness	0.20
Diameter of central hole	0.20

Cost.—At Watervliet Arsenal \$0.41 each.

This price is based upon the fabrication of the punches in lots of 200 each.

VENT GIMLET.

Material.—This gimlet is made from steel wire, 0".18 in diameter.

Fabrication.—One end of the wire has a helical groove finished with a gimlet point. The other end or head is formed into a ring. The

helical groove and screw-point are made by machinery. The gimlet is carefully tempered.

	Inches.
<i>Dimensions.</i> —Total length	7.2
Body—Length	5.0
Diameter	0.17
Helical interval, groove	1.00
Length of screw-point	0.25
Head—Circular ring:	
Interior diameter	1.7
<i>Cost.</i> —At Watervliet Arsenal, West Troy, N. Y.	\$0.15 each.

This estimate is based upon the fabrication in lots of 200 each.

Remarks.—These implements can be made at Watervliet Arsenal, West Troy, N. Y. The gimlet is made by mechanism devised at that arsenal.

V.

* * * * *

9.—MCLELLAN'S TRIPOD AND TRAVELER-BLOCK.

(Plate III.)

UNITED STATES LIFE-SAVING SERVICE,
Bay Shore, New York, January 9, 1882.

S. I. KIMBALL, Esq.,
General Superintendent U. S. Life-Saving Service,
Washington, D. C.:

SIR: I have the honor to request permission to submit to the Board for the Examination of Life-Saving Devices the following articles, viz:
Tripod.
Traveler-block for breeches-buoy.

DESCRIPTION AND USE OF THE TRIPOD.

A galvanized malleable iron plate, of triangular shape, having on its under side three sockets, into which white spruce legs 2 by 2½ inches by 10 feet are secured with ½-inch bolts. On the upper side of the plate are two upright standards, holding a 3-inch by 1½-inch brass self-lubricating-sheave, with a locking-pin through the upper ends of the standards.

USE AND ACTION OF THE TRIPOD.

The tripod is intended to take the place of the crotch now in use.

When closed the legs are folded up, bringing the standards and sheave between the legs.

When opening for use one man drops the head upon the ground, and allows the legs to fall out and down, which leaves the sheave uppermost, ready for the hawser.

The hawser is hauled moderately taut, placed between the standards upon the sheave, the pin inserted, when two men at each leg and two

LIFE-SAVING APPARATUS.

MCLELLAN'S TRIPOD.

FIG. 1000 47

LIFE-SAVING STATIONS.

1882.

FRONT VIEW

SECTION

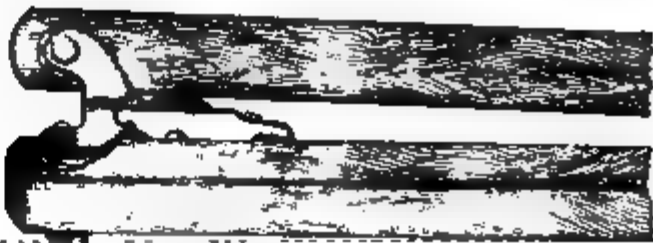
SIDE VIEW



BOTTOM VIEW



FOLDED FOR TRANSPORT



SCALE



in the middle raise it in position, with two legs to the front and one in the rear. It requires no further care or attention, but can be left to haul taut or slack the hawser as circumstances require.

When raising the crotch now in use, its head has to be inclined towards the wreck to allow it to come to a perpendicular position when the hawser is taut, and requires constant attention of the crew until the hawser is taut. Every time the hawser becomes slack through the passage of one or more over it in the buoy, the crotch requires the attention of two or more to prevent its falling while getting the necessary strain upon the hawser, and if there be much motion to the vessel it must also be tended to prevent its falling through the sudden jerking of the hawser. Also, when the tackle on the hawser has to be veered and hauled to accomodate the motion of the vessel, the crotch requires the constant attention of two or more men to prevent its falling.

With the use of the tripod, those men who are necessary to watch the crotch can be used elsewhere, as the tripod stands firmly braced, and the hawser plays freely over the sheave either when hauling it taut, or veering and hauling when the motion of the vessel requires such attention.

With the tripod the hawser is not nipped, as it is in the jaws of the crotch.

I have used the tripod on the beach with the apparatus and given it as severe tests as it was possible for me to give, and in every case it worked most satisfactorily. There is no patent on it excepting the sheave. Its weight without the legs is $8\frac{1}{2}$ pounds; with the legs complete about 38 pounds; and its cost \$9.

The weight of the crotch averages about 65 pounds.

DESCRIPTION AND USE OF THE TRAVELER-BLOCK.

A light galvanized malleable iron shell, with two 3- by $1\frac{1}{2}$ -inch brass self-lubricating sheaves.

A portion of one side of the shell is movable and opens a little below the sheaves upon two hinges, the lower end of the movable part of the shell clasping over a projection on the tail of the block, and secured by a bolt worked by a cam. This block is intended as a substitute for the breeches-buoy block now in use, which requires the hawser to be overhauled through it before or while it is being sent off to the wreck, and the same labor is necessary when unrigging the apparatus.

With my block the hawser is sent off, and after it is hauled taut, and before raising the crotch, the block is snapped upon the hawser, requiring but the instant attention of one man.

Since perfecting my block, I find there is a patent which effects the opening movement of the side, but the right is owned by the manufacturers of this block.

Its weight complete is $6\frac{1}{2}$ pounds, and its cost \$10.50.

As the above block and tripod have already been submitted for your inspection, to save expense I will not send them to Washington again, but will send them to No. 3 Bowling Green, to await the action of the Board.

Very respectfully, your obedient servant.

C. H. McLELLAN,
Second Lieutenant and Assistant Inspector.

REPORT

OF THE

BOARD ON LIFE-SAVING APPLIANCES.

NOVEMBER MEETING, 1882.

LETTER OF TRANSMITTAL.

OFFICE OF INSPECTOR OF UNITED STATES

LIFE-SAVING STATIONS,

No. 3 Bowling Green, New York, November 18, 1882.

SIR: I have the honor to transmit herewith report of the Board on Life-Saving Appliances for the November meeting, 1882, together with accompanying papers.

Very respectfully,

F. R. BABY,

President of the Board.

SUMNER I. KIMBALL, Esq.,

General Superintendent U. S., Life-Saving Service.

REPORT.

NOVEMBER MEETING, 1882.

BOARD ON LIFE-SAVING APPLIANCES,
No. 3 Bowling Green, New York, November 17, 1882.

I.—PREAMBLE.

The Board on Life-Saving Appliances, constituted by the Secretary of the Treasury in Department letter of January 3, 1882, met at No. 3 Bowling Green, New York, on November 14, 1882, for the transaction of such business as should properly be brought before it. The president of the Board, William R. Garrison, having died since the last meeting of the Board, Frank R. Baby, esq., was appointed president of the Board, *vice* Garrison, deceased, by the Secretary of the Treasury, in Department letter dated July 13, 1882.

The Board as at present constituted consists of—

1. Frank R. Baby, esq., president.
2. Capt. J. H. Merryman, U. S. R. M., inspector of life-saving stations.
3. Capt. D. A. Lyle, Ordnance Department, U. S. A.
4. Lieut. T. D. Walker, U. S. R. M., assistant inspector of life-saving stations.
5. Superintendent B. C. Sparrow, Second District Life-Saving Service.
6. Superintendent D. P. Dobbins, Ninth District Life-Saving Service.
7. Keeper J. C. Patterson, Station No. 1, District 4, Life-Saving Service.

II.—DOCKET.

CLASS I.—*Wreck ordnance.*

1. The Fox "Vacuum gun of '82".
2. German life-saving rockets and rocket apparatus.
3. Boxer life-saving rockets and rocket system (English).
4. Lyon-Gordon line-carrying projectile.
5. Galvanized sheet-iron faking boxes.
6. Dobbins' firing plank for Lyle gun and mortar.

CLASS II.—*Miscellaneous appliances.*

1. Dobbins' self-righting surf-boat.
2. Turners' improvement in surf-boats.
3. Eddy's patent surf or life boat.
4. Bryant's double life-boat.
5. Boone's life-boat propulsion by compressed air.
6. Dobbins' self-ballasting, self-righting, and self-bailing life-boat.
7. Fryer's buoyant propeller ship.

8. Dwyer's life-saving steam launch.
9. Miller's oscillating life-raft.
10. Rider's clipper life-raft.
11. Dobbins' self-righting life-car.
12. Cranston's safety-lighting attachment for patrol lanterns.
13. Williston and Lucas' method of annealing glass for lanterns.
14. Jackson's "self-igniting fuse and illuminating light".
15. Coston's distinguishing night signals (for stations).
16. Coston's new beach-light signal and holder.
17. Holmes' marine signals.
18. Gould's remedy for twisting of whip-lines and hawsers in running out together.
19. Dobbins' open runner block for breeches-buoy and life-car.
20. Mitchell's improvement in breeches-buoy.
21. Dobbins' double whip-reel for mortar cart.
22. Dobbins' detachable thills for mortar cart.
23. Jones' improved hand cart.
24. Ottinger's sand wheel.
25. Richardson's galvanized row-locks for life-boats.
26. Leavitt's emergency life-boat plug.
27. Dobbins' detachable bails for life-cars.
28. Forbes' use of oil on rough seas.
29. Mrs. Pratt's method of distributing oil on rough seas.
30. Uniform for crews of life-saving stations.

III.—COMMITTEES.

I.—Committees appointed.

1. On Cranston's safety-lighting attachment for patrol lanterns: Capt D. A. Lyle, Ordnance Department, U. S. A.; Keeper J. C. Patterson, Station No. 1, Fourth District.
2. On the Lyon-Gordon line-carrying projectile: Capt. J. H. Merryman, U. S. R. M.; Capt. D. A. Lyle, Ordnance Department, U. S. A.; Keeper J. C. Patterson, Station 1, District 4.

II.—Committees continued.

1. On Williston and Lucas' method of annealing glass: Capt. J. H. Merryman, U. S. R. M.
2. On Coston's distinguishing night signals (for stations): Capt. J. H. Merryman, U. S. R. M.
3. On use of oil on rough seas: Superintendent B. C. Sparrow, Second District, Life-Saving Service.

III.—COMMITTEES' REPORTS.

CLASS I.

1. On German life-saving rockets and rocket apparatus.
2. On Boxer life-saving rockets (English).
3. On galvanized sheet-iron faking boxes.

CLASS II.

1. On Cranston's safety-lighting attachment for patrol lanterns.
2. On Jackson's "self-igniting fuse and illuminating light."

3. On Coston's new beach-light signal and holder.
4. On Holmes' marine signals.
5. On Jones' improved hand cart.

IV.—PRESENCE OF EXHIBITORS.

Inventors and exhibitors were allowed to be present before the Board for the purpose of explaining their devices.

V.—RESULTS.

CLASS I.—*Wreck ordnance.*

1. S. Fox's "Vacuum gun of '82".—This apparatus was submitted in the form of drawings, with a description. The inventor's description and drawings are appended to this report. The device is utterly impracticable, and is not worthy of further consideration.

2. *German life-saving rockets and rocket apparatus.*—This system of rockets and apparatus has proved to be the best rocket system that has ever come before the Board. It is quite simple, well made, and but for the inherent defects of rockets generally it would be a good system. It is very expensive. The transportation loosens the composition and allows the flame to penetrate between the case and composition, which accounts for the explosions mentioned in the appended report. The same effect is produced by the expansion and contraction of the case, due to changes of temperature. The effect of the explosions of rockets is very demoralizing upon the life-saving crews. These explosions are often fraught with considerable danger, since the cases are made of metal, and the flying pieces are liable to injure the crew.

3. *Boxer rocket system.*—This system has been fully explained in preceding reports. The report of firing without lines is appended. This system is too complicated for the use of our service when a much simpler apparatus is already in use. No explosions have occurred so far with these rockets, as but few have been fired. Erratic flight and the impossibility of reducing the charge are disadvantages that cannot be ignored, to say nothing of the expense. Loosening of the composition by changes of temperature and the jarring in transportation are defects in this system also.

4. *Lyon-Gordon line-carrying projectile.*—Action on this invention was postponed until samples of projectiles adapted for use with the 2". 5 Lyle gun can be made and submitted for trial. The recorder was directed to notify Lieutenant Lyon of the action of the Board. The president appointed a committee consisting of Capt. J. H. Merryman, U. S. R. M., Capt. D. A. Lyle, Ordnance Department, U. S. A., and Keeper J. C. Patterson, to test the samples when submitted.

5. *Galvanized sheet-iron faking boxes.*—These boxes are described and figured on page 409, *et seq.*, Report of the Operations of the Life-Saving Service for 1881. The results of the experiments are detailed in the report of the committee appended to this report. They are lighter and more durable than the wooden boxes.

6. *Dobbins' firing plank for Lyle gun.*—This is made of pine and is said to weigh about 8 or 9 pounds. It is the same length as the sand anchor and can be carried with the anchor on the cart. It has closing pointing-sticks on one side to lay the gun, and when they are not in use they close down into a slot, flush with the upper surface of the plank. One model has a graduated arc at the rear end for traversing the plank

carrying the gun and carriage, so as to allow for the effect of the wind and the drift of the line. A rope breeching whose ends are passed through holes in front of a hard-wood transom, passes over the cascabel of the gun, securing the gun and carriage to the plank. The latter recoils with the gun and carriage, and prevents upsetting and also any injury to the surface of the gun upon frozen or rocky ground. The only disadvantage is the increased strain thrown upon the trunnions in recoiling. It is inexpensive and can be made at the stations.

CLASS II.—*Miscellaneous appliances.*

1. *Turner's improvement in surf-boats.*—It was understood at the last meeting of the Board that this subject would come up in a new form.

Nothing further has been received in regard to the case. The Board, therefore, returns the papers to the General Superintendent, and deems further action unnecessary until such time as the subject can be submitted in proper form for consideration.

2. *Eddy's patent surf or life boat.*—A model and specifications were submitted and explained by the inventor, who appeared before the Board. He stated that a steel boat, 20 feet long, 6 feet beam, would weigh about 1,750 pounds. He was unable to give the cost. This boat is too heavy for transportation on the beach with our limited crews. It possesses no special merit nor advantages over the model already in service. It is simply a modification of the life-raft.

3. *A. T. Boone's life-boat, to be propelled by compressed air.*—This boat is essentially a life-raft. A model and description were submitted. To use this boat or raft, assuming that its action would be perfect, would require each station to be supplied with compressing apparatus which would be expensive. This apparatus being on shore could not be used to replenish the reservoirs should they become empty while the raft is out at sea.

4. *Dwyer's life-saving steam launch.*—Neither model nor drawing was submitted. A short description was sent to the Board. The absence of proper data embarrassed the Board in its action. The application of steam to the propulsion of life or surf boats is not considered practicable in any form yet submitted for the consideration of the Board.

5. *Miller's oscillating life-raft.*—A model was submitted and its action and construction described by the inventor. It is designed to be launched from vessels, and to be hauled from shore to a vessel and back by a line. It consists of two cigar-shaped boats connected by rods of hard wood, decked over and provided with rails. It is made of spruce five eighths inch thick, and is 12 feet long, and costs about \$145. It presents no advantages over those in service.

6. *Rider's clipper life-raft.*—The inventor appeared and requested the Board to recommend that he be authorized by the Department to drill one of the life-saving crews in the use of his raft, and that a test of the device be made by this crew before the Board, and that a report of the trial be made by the Board.

7. *Dobbins' self-righting life-car.*—This is an improvement upon the metallic car in present use. The change consists in inserting a false bottom, air and water-tight, 3 inches above the bottom of the car, and piercing two or three holes through the latter to admit water to ballast the car and keep it upright when in the water. A small air passage is placed along the side to give egress to the air as the water is admitted. When the hawser is high enough above the water to suspend the car in the air, the water runs out through the holes in the bottom, thus

diminishing the weight. This improvement should be made in all life-cars constructed in the future. It would be somewhat expensive to change those already in the service.

8. *Cranston's safety-lighting attachment for lanterns.*—This is fully explained in the report and drawings attached to this report. It answers the purpose for which it is intended. Lanterns can be lighted in windy and stormy weather provided the matches used are long enough to reach the wick through the hole in the glass globe.

9. *Jackson's self-igniting fuse and illuminating light.*—The results of the trials are given in the committee's report. These signals are ignited by acid contained in a small glass bulb placed in a cap carried on the lower end of the handle. This cap, when the signal is to be used, is placed over the top of the signal case, and the signal ignited by a blow which breaks the glass bulb, allowing the acid to come in contact with the detonating composition.

10. *Coston's beach-light signal and holder.*—These are fully explained in the committee's report. The holder is open to objection on account of its expense, and could be improved in some minor details. The cases of the signals are too weak. The flame is bright, but, like some other beach-lights, it does not give satisfaction.

11. *Holmes' marine signals.*—These are described by the committee appointed to test them. Its report is appended. These signals would be of no benefit to the Life-Saving Service. Their best use would be for attachment to life-buoys for casting into the sea when a person falls overboard, provided the spectator has presence of mind enough to cut the cone and bottom cap so it would ignite on contact with the water, else it would be of no value in guiding the person in the water to the buoy.

12. *N. E. Gould's remedy for twisting of whip-lines and hawsers in running out together.*—Mr. Gould suggests that the whip-line should be left-hand laid and that the hawser should be right-hand laid in order to prevent twisting when hauled off together. This method has been employed by the English life-boat association, and was adopted in our service, but through some oversight the whip-lines were made right-hand laid. All lines now issued are made as suggested.

13. *Dobbins' open runner block for breeches-buoy and life car.*—This is designed for use on the lakes and over fresh water, which freezes very rapidly. The strap is of galvanized iron. The roller has a steel arbor which passes through a sleeve of wrought iron. The latter is surrounded by a grooved roller of *lignum vitæ*. The eye should be placed at right angles to its position, as shown in the model, and the shank of the eye should be shorter. The cost will be about \$5 or \$6.

14. *Mitchell's improvement in method of construction of breeches-buoy.*—This improvement is a canvas life-car; a small model was submitted. If this or a similar design was worked up in all its details, it would form an excellent auxiliary to the metallic life-car now in service. Its chief merits are cheapness, lightness, strength, and buoyancy. It is 6 feet long, 3 feet wide, and 3 feet deep, and weighs from 75 to 100 pounds.

15. *Dobbins' double whip-reel for mortar cart.*—This was shown in a model. The chief advantages are, to be able to reel up both ends of the whip-line at the same time, or either end separately. In cases of use at wrecks it does away with making two splices, only one being necessary. At the ends of the reel are standards lengthened, one to carry a beach-light and the other a small magazine for ammunition. In District No. 9 the crew at each station has made a reel after this model. They have proved very satisfactory.

16. *Dobbins' detachable thills for mortar carts.*—The same thills are used in the Jones cart, as may be seen by reference to the drawing in this report. Mr. Jones adopted them by permission of Captain Dobbins. They are simple, strong, and easily affixed and detached from the cart. If supplied they should be constructed with reference to the cart or carriage of the future to avoid expense.

17. *Jones' hand-cart.*—The appended report of the committee gives the details of the experiments with this cart. The larger wheels and slide bars for the body are the chief differences from the service cart. The cost is a little greater.

18. *Richardson's galvanized iron rowlocks for life-boats.*—The Board recognizes the fact that this rowlock possesses merit, but owing to the diversity of opinion among surfmen in regard to the form of these articles, the Board is unwilling to recommend its general adoption for the service.

19. *Leavitt's emergency life-boat plug.*—This plug is liable to corrode and to bind, as was evidenced in the samples before it. It is not adapted to the wants of the service.

20. *Dobbins' detachable bail for life-cars.*—This is an improvement on the one in use. The new bail has a fork at each end which slides over an ear or lug attached to the car. The bails are fastened by keys, to which safety-chains are attached to prevent their loss. When the car has to be drawn through the water, the bails can be detached and the line made fast to the ends of the life-car.

VI.—OPINIONS.

CLASS I.—*Wreck ordnance.*

1. *S. Fox's "Vacuum gun of '82."*—The Board is of the opinion that this device is chimerical and that further consideration is unnecessary.

2. *German rocket system and apparatus.*

3. *Boxer rocket apparatus (English).*—The Board is of the opinion that the great expense of these systems, the uncertainty of flight of the rockets, their liability to deterioration and to explosion from the loosening of the composition due to transportation and changes of temperature, do not commend them to favorable consideration. The service being now supplied with a system of less cost and more reliability, the Board cannot recommend the change to any rocket system.

4. *Lyon-Gordon line-carrying projectile.*—The Board is of the opinion that the application of this projectile, using cal. "45. rifle or revolver, is not adapted to the wants of the service. Lieutenant Lyon will be notified to submit samples of projectiles for the 2".5 Lyle gun to be tested by the Board. A committee was appointed to conduct the tests and report results.

5. *Galvanized sheet-iron faking boxes.*—The Board is of the opinion that these boxes possess greater endurance than the wooden boxes now in use, and that they are adapted to the uses of the Life-Saving Service.

6. *Dobbins' firing-plank for Lyle gun.*—It is the opinion of the Board that this device is a valuable auxiliary to the apparatus, especially on rough or rocky ground; and that it could be made at the several stations by the surfmen, if drawings were furnished.

CLASS II.—*Miscellaneous appliances.*

1. *Eddy's patent surf or life-boat.*—It is the opinion of the Board that there is nothing novel in the invention, and that from its weight and probable cost it would not be of value to the service.

2. *Alonzo T. Boone's life-boat propelled by compressed air.*—It is the opinion of the Board that this life-raft, or boat, is impracticable for the uses of the Life-Saving Service.

3. *Dwyer's life-saving steam launch.*—The Board is of the opinion that this design is entirely impracticable for the uses of the service.

4. *Miller's oscillating life-raft.*—The Board is unanimously of the opinion that this raft possesses no advantages over that now used in the service, and its adoption is not recommended.

5. *Rider's clipper life-raft.*—It is the unanimous opinion of the Board that in view of the experience gained from handling the rafts already in service, and that of the individual members of the Board, the Board cannot recommend that any life-saving crew be required to risk their lives on a raft which is undoubtedly inferior to a boat for rowing out through a surf. The Board therefore declines to make any recommendation in the premises, except that no further tests of this invention be made by the Life-Saving Service.

6. *Dobbins' self-righting life-car.*—The Board is of the opinion that this improvement in metallic life-cars is very meritorious, and that it should be adopted in all future constructions.

7. *Cranston's safety-lighting attachment for lanterns.*—The Board is of the opinion that the merits of this contrivance are so obvious that its introduction into the service should be recommended.

8. *Jackson's self-igniting fuses and illuminating signals.*—The Board is of the opinion that the method of igniting these signals is of such a character as not to warrant their adoption by the Life-Saving Service.

9. *Coston's beach light (signal and holder).*—The Board is of the opinion that this light does not fully meet the requirements of the service, and would suggest waiting until some light can be devised that will give more favorable results.

10. *Holmes' marine signals.*—It is the opinion of the Board that these signals are of no value to the Life-Saving Service.

11. *Dobbins' open roller-block for breeches-buoy and life-car.*—The Board is of the opinion that this block, with some modifications, is adapted to those life-saving stations situated upon bodies of fresh water.

12. *Mitchell's improvement in method of construction of breeches-buoy.*—The Board is of the opinion that there is merit in this invention, though the device is in a crude state at present. It is of the further opinion that the invention should be worked up, and that it, or a similar device, be adopted for use in the service.

13. *Dobbins' double whip-reel for mortar cart.*—The Board is of the opinion that this reel possesses great advantages over those now used. These reels should be made with a view to being used with a new cart or carriage should one be adopted.

14. *Dobbins' detachable thills for mortar cart.*—The Board is of the opinion that this invention is meritorious, and should be attached to all carts where a horse is available.

15. *Jones' hand-cart.*—The Board is of the opinion that the subject of hand-carts should receive further consideration to determine whether or not a four-wheeled carriage should be adopted. In view of this fact, and that the improvements in Jones' cart are of such a character as not to give great superiority over the one in service, the Board does not desire to recommend its adoption, and would respectfully suggest that efforts looking to a solution of this question be made before incurring the expense of a radical change.

16. *Leavitt's emergency life-boat plug.*—The Board is of the opinion that this invention is not adapted to the wants of the service.

17. *Dobbins' detachable bails for life-cars.*—The Board is of the opinion that this form of bail is superior to the one now placed on life-cars.

18. *Uniform for crews of life-saving stations.*—It is the unanimous opinion of the Board that the designs for articles of uniform submitted by Capt. J. C. Patterson fully meet the wants of the service.

VII.—RECOMMENDATIONS.

CLASS I.—*Wreck ordnance.*

1. *Galvanized sheet-iron faking boxes A and B.*—The Board would respectfully recommend to the General Superintendent that these boxes be procured to gradually replace the wooden ones that are split or broken in service.

2. *Dobbins' firing-plank for Lyle gun or mortar.*—The Board respectfully recommends that drawings of this plank be furnished to the stations so that they can be made by the crews for use with their guns.

CLASS II.—*Miscellaneous appliances.*

1. *Dobbins' self-righting life-car.*—The Board would respectfully recommend that the improvement of Captain Dobbins be incorporated in all metallic life-cars made in the future.

2. *Cranston's safety-lighting attachments for patrol lanterns.*—The Board respectfully recommends the gradual adoption of this invention by replacing globes broken at stations with those having this attachment.

3. *Dobbins' open runner-block for breeches-buoy and life-car.*—The Board respectfully recommends that the stations upon the lakes be furnished with this block after the modifications have been made.

4. *Dobbins' double whip-reel for mortar cart.*—The Board would respectfully recommend the adoption of these reels in place of those now in service.

5. *Dobbins' detachable thills for mortar cart.*—The Board would respectfully recommend the adoption of these thills at stations where horses are attainable, subject to the provision before mentioned.

6. *Dobbins' detachable bail for life-car.*—The Board would respectfully recommend that this bail be adopted in future constructions.

7. *Uniform for life-saving crews.*—The Board would unanimously recommend that the uniform described and submitted by Captain Patterson be adopted for the use of the crews at life-saving stations, and that the General Superintendent select some distinctive design or badge to designate the keepers of the stations.

VIII.—UNFINISHED BUSINESS.

CLASS I.—*Wreck ordnance.*

1. Lyon-Gordon line-carrying projectile.

CLASS II.—*Miscellaneous appliances.*

1. Dobbins's self-righting surf-boat.

2. Bryant's double life-boat.

3. Dobbins's self-ballasting, self-righting, and self-bailing life-boat.

4. Fryer's buoyant propeller ship.

5. Williston and Lucas' method of annealing glass.

6. Coston's distinguishing night signals (for stations).

7. Ottinger's sand wheel.
8. Forbes' use of oil on rough seas.
9. Mrs. Pratt's plan for distributing oil on rough seas.

ADDENDA.

- I.—Daily record of proceedings of Board.
- II.—Reports of committees.
 1. German life-saving rockets and rocket apparatus.
 - A. Rockets: their classification, &c., by Capt. D. A. Lyle, Ordnance Department, U. S. A.
 2. Boxer life-saving rockets.
 3. Galvanized sheet-iron faking boxes.
 4. Cranston's safety-lighting attachment for patrol lanterns.
 - A. Report of Captain Patterson, Station No. 1, Fourth District.
 - B. Descriptive report by Capt. D. A. Lyle, Ordnance Department, U. S. A.
 5. Jackson's self-igniting fuse signals, &c.
 6. Coston's beach-light signal and holder.
 7. Holmes' marine signals.
 8. Jones' improved hand-cart.
 - A. Report of experiments by Keeper Patterson.
 - B. Specifications.
 - C. Claims and propositions of inventor.
- III.—Eddy patent surf or life boat.
- IV.—Dwyer's life-saving steam launch.
- V.—Leavitt's emergency life-boat plug.
- VI.—Boone's life-boat propulsion by compressed air.
- VII.—Dobbins' double whip-reel.
- VIII.—Miller's life-raft.
- IX.—Lyon-Gordon line-carrying projectile.
- X.—Uniform for life-saving crews.
- XI.—The Fox "Vacuum gun of '82".

F. R. BABY,
President of the Board.

J. H. MERRYMAN,
Captain U. S. R. M.

DAVID A. LYLE,
Captain of Ordnance, U. S. A.

THOMAS D. WALKER,
Lieut. U. S. R. M., Recorder.

B. C. SPARROW,
Supt. Second Life-Saving District.

D. P. DOBBINS,
Supt. Ninth Life-Saving District.

JOHN C. PATTERSON,
Keeper Station No. 1, Fourth District.

There being no further business before it, the Board adjourned *sine die*.

F. R. BABY,
President of the Board.

THOMAS D. WALKER,
Lieutenant U. S. R. M., Recorder of the Board.

ADDENDA.

I.

DAILY RECORD OF THE PROCEEDINGS OF THE BOARD.

No. 3 BOWLING GREEN, NEW YORK,
November 14, 1882.

In compliance with the call of the president, the Board on Life-Saving Appliances assembled at the office of the inspector of United States Life-Saving Stations, No. 3 Bowling Green, New York City, on the 14th day of November, 1882, at noon. Present: Frank R. Baby, president; Capt. J. H. Merryman, U. S. R. M.; Capt. D. A. Lyle, Ord. Dept., U. S. A.; Lieut. T. D. Walker, U. S. R. M., recorder; Superintendent B. C. Sparrow, U. S. L. S. S.; Superintendent D. P. Dobbins, U. S. L. S. S.; and Keeper J. C. Patterson, U. S. L. S. S.

The president opened the proceedings by reading the letter of the Secretary of the Treasury appointing him president of the Board, as successor of the late William R. Garrison, the letter bearing date July 13, 1882, which is as follows:

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, D. C., July 13, 1882.

SIR: You are hereby designated president of the Board for the examination of plans, devices, and inventions designed for use in the United States Life-Saving Service, *vice* Wm. R. Garrison, deceased.

I regret that no compensation can be made for your services hereunder, but all traveling and other expenses necessarily incurred will be reimbursed.

I inclose for your information a copy of the original letter of the Secretary of the Treasury, dated January 3, 1882, constituting the Board, and stating the object of its organization, together with a copy of the rules and regulations of the Board now in force.

Please acknowledge the receipt of this letter.

Very respectfully,

CHAS. J. FOLGER,
Secretary.

FRANK R. BABY, Esq.,
New York City.

The minutes of the last meeting of the Board (February 8, 1882) were then read and approved.

Captain Merryman offered the following resolutions relative to the death of the late President Garrison, which were adopted unanimously:

Whereas it has pleased the Almighty, in His inscrutable wisdom, to take away from us our late president, William R. Garrison, who in his too brief association with us had won our respect and esteem no less for his abilities and varied attainments than for his high character as an honorable and amiable gentleman: Therefore, be it unanimously

Resolved, That a sense of our heartfelt sympathy is hereby conveyed

to the afflicted family of our late president, with a prayer that his fondest hopes and plans for their future may be fully realized.

Resolved, That in the untimely death of William R. Garrison this Board has lost a valued friend and adviser.

Resolved, That the president of the Board be authorized to request the General Superintendent of the Life-Saving Service to communicate to the family of our late president the condolence of the whole service, together with a copy of these resolutions.

And be it further resolved, That a copy of these resolutions be spread upon the records of the Board and included in its report to the General Superintendent for publication with its proceedings.

The president then submitted letters from the General Superintendent of the Life-Saving Service, dated November 9 and 11, respectively, referring the following subjects to the consideration of the Board, viz:

From Superintendent D. P. Dobbins the following: Self-righting surf-boat; self-ballasting, self-righting, and self-bailing life-boat; self-righting life-car; firing-planks for Lyle gun and mortar; double whip-reel for mortar cart; detachable thills for mortar cart; detachable bails for life-car, and an open runner-block for breeches-buoy and life-car.

George A. Leavitt, jr., Newburg, N. Y.: Emergency life-boat plug.

Samuel Fox, Toledo, Ohio: "Vacuum gun of '82."

Lewis G. Mitchell: Improvement in breeches-buoy.

Lieut. Marcus W. Lyon, U. S. A.: Line-carrying projectile.

Daniel Dwyer: Life-saving steam launch.

James F. Cranston: Safety-lighting attachment for patrol lanterns.

Daniel B. Eddy: Patent Surf-boat.

Henry Miller: Life-raft.

John Rider, New York: Clipper life-boat and raft.

Mrs. T. D. Pratt: Plan of boat for distributing oil upon the waves.

A. T. Boone: Boat to be propelled by "condensed air".

Superintendent J. M. Richardson, U. S. L. S. S.: Galvanized iron row-lock.

J. M. Jones, Paris, Kentucky: Letters patent covering his invention of a hand-cart now upon the docket of the Board.

Keeper N. E. Gould, U. S. L. S. S.: Suggesting remedy for twisting or fouling of hawsers and whip lines.

The regular order of business was then taken up.

REPORTS OF COMMITTEES.

1. Captain Lyle submitted the report of his committee on sheet-iron faking boxes.

Upon motion the report was accepted and placed on file and the committee discharged.

After discussion of the merits of this style of faking-box, it was resolved by the Board to recommend its adoption by the Life-Saving Service.

GERMAN ROCKET SYSTEMS.

2. Captain Lyle read the report of committee on the German life-saving rocket apparatus and the German rocket systems generally.

The report was accepted, and, after discussing the question of the adoption of the German system by the Life-Saving Service, it was declared to be the sense of the Board that although there can be no doubt that it is the best rocket system thus far brought to notice, the Board cannot, on account of the great expense of the apparatus and the uncertainty

of flight of the line-carrying projectiles, recommend it to the officers in charge of the service.

The committee was thereupon discharged from the further consideration of the subject.

BOXER ROCKET SYSTEM (ENGLISH).

3. The report of the committee on this system was also presented by Captain Lyle.

The report was accepted and ordered to be filed, the president announcing that its discussion was now in order.

After a full interchange of views on the merits of this system, which is in use by the National Life Boat Institution of Great Britain, it was declared to be the opinion of the Board that the adoption of a system which is more expensive and far less reliable than the apparatus now used by the U. S. Life-Saving Service should not be recommended.

The committee requested to be discharged from the further consideration of this subject, and, upon motion, it was so ordered.

The next unfinished business in order upon the docket was the consideration of committees' reports upon miscellaneous appliances.

1. J. M. Jones' hand-cart:

The committee's report was read.

The report set forth that several comparative tests of the cart constructed by Mr. J. M. Jones, with the service cart now in use, had demonstrated that the claims of the inventor for the superiority of his cart are not fully maintained.

The Board entered into a full and free discussion of the advantages claimed for the Jones cart. It was decided that the improvements are not of such a character as to warrant a recommendation for its adoption in the Life Saving Service.

The committee was discharged and the report placed on file.

2. R. B. Forbes' recommendations for the prosecution of experiments with oil in "smoothing broken water":

Superintendent Sparrow, as committee on such experiments, made verbal report of progress with tests made by himself upon the coast of Massachusetts, and stated that he was not prepared to recommend definite action at present and requested further time to examine the subject more thoroughly.

The committee was continued.

3. Samuel Jackson's self-igniting fuse and illuminating lights:

Captain Lyle, of the committee thereon, reported in detail a series of experiments at Sandy Hook, and, after due discussion of the subject, it was declared to be the sense of the Board that the method of igniting these fuses is of such a character as not to warrant a recommendation for the adoption of this signal by the service.

The report was ordered filed and the committee discharged.

4. Coston's beach-light (signal and holder):

Captain Lyle submitted the committee's report on this invention. The report was accepted and the committee discharged from further consideration of the subject.

The Board, after discussing the result of the experiments made by the committee, declared its inability to report favorably upon Mr. Coston's fabrication, upon the ground that it does not fully meet the require-

ments of the service, the Board preferring to wait until something can be devised in that direction that will give more favorable results.

5. Holmes' marine-signals:

These signals were delivered to the Inspector of Life-Saving Stations, a member of the Board, by Mr. S. L. Merchant, of No. 5 Bowling Green, New York, who was informed that he should submit a letter on the subject to the General Superintendent of the Life-Saving Service. Captain Merryman, as senior member of the Board present, sent the signals to Sandy Hook, New Jersey, with several other devices and appliances, and appointed Capt. D. A. Lyle, U. S. A., and Keeper John C. Patterson, of Station No. 1, Fourth District, a committee to test and report thereon. From some cause unknown to the Board, Mr. Merchant failed to place the subject before the General Superintendent, but as the committee made the tests and submitted a report, the latter is included in the proceedings.

The report referred to was submitted to the Board, and ordered to be filed.

The merits of this signal were then considered, resulting in an expression of the opinion that the device, as a signal, cannot be utilized with benefit to the Life-Saving Service, it being evidently intended for use on shipboard.

The committee was discharged.

6. Williston and Lucas' process for annealing glass for lantern globes and chimneys:

Captain Merryman reported that, from the tests made by him with the samples presented by the manufacturers, he had been unable to arrive at any decidedly successful results, and that he was therefore unable to report definitely upon the subject.

The committee was therefore continued.

At 3.50 P. M., the Board adjourned to meet at 11 A. M. to-morrow, the 15th instant.

THOMAS D. WALKER,
Recorder.

WEDNESDAY, *November 15, 1882.*

The Board assembled at 11 A. M., as per adjournment yesterday, all the members being present.

The minutes of yesterday's meeting were read and approved.

The Board then proceeded to the consideration of the docket.

7. James F. Cranston's safety-lighting attachment for lanterns:

A lantern with the safety-lighting attachment, accompanied by drawings and specifications, was submitted by the president, and, upon motion, was referred to a committee for examination and report.

The committee was appointed as follows: Capt. D. A. Lyle, U. S. A., and keeper John C. Patterson, of the Life-Saving Service.

These members of the Board had already conducted a series of experiments with this device at Sandy Hook.

After presentation of the committee's report, Mr. Cranston appeared before the Board and explained the working of his invention, exhibiting several railroad and other lanterns, to which the device had been applied.

Upon Mr. Cranston's withdrawal, the Board discussed the merits of this invention, and came to the conclusion that a recommendation be

made to the General Superintendent for its gradual introduction at the stations of the service.

The report was filed and the committee discharged.

8. Daniel B. Eddy's patent surf or life-boat was next considered:

A model, with specifications, was submitted, and Mr. Eddy appeared and explained the merits claimed for it. Mr. Eddy estimated the weight of a steel boat of his model, say, 20 feet long, with 6 feet beam, would be 1,750 pounds, but he was unable to give the cost.

After due discussion of the subject, the Board expressed the unanimous opinion that as there is nothing novel in the invention, and it does not appear to be adaptable to the needs of the Life-Saving Service, its use should not be recommended, its form and great weight being the principal reasons for that conclusion.

9. The next subject was Henry Miller's oscillating life-raft, a model and specifications of the same being presented.

The inventor being presented, he described at length the method of construction and the principles claimed for the raft. Upon discussing the question of the adaptability of this raft to the requirements of the service, the Board decided not to recommend its adoption, upon the ground that it possesses no advantages over the rafts already placed at some of the stations of the service.

10. Lewis T. Mitchell, surfman at Station No. 19, Fourth District:

A drawing of what Mr. Mitchell claimed is an improvement in the method of constructing the breeches-buoy.

The inventor appeared before the Board with a small canvas model and explained its uses. It is, in fact, a life-car of canvas, of the same general form as the metallic car now in use. The cover turns back to permit of the ingress and egress of those taking passage by it. The bottom and sides are of double canvas, while the top, or cover, is single. He proposes to make the ribs, or frames, of half-inch iron wire, and the car is to be suspended from the hawser by two traveler-blocks in a manner similar to the present life-car. For the purpose of increasing its buoyancy there will be a cork fender, or buoy, entirely around it at what may be termed the gunwale. It is, in fact, a strong, light, and buoyant life-car, the weight being estimated at about 100 pounds, with dimensions as follows: 6 feet long, 3 feet wide, and 3 feet deep.

The Board expressed the opinion that there is merit in this invention, though the device is in a crude state at present. The opinion was also expressed that the invention should be worked up in its details, and that it, or a similar device, be adopted for the service in addition to the heavy metallic life-car now in use.

11. Lyon and Gordon's line-carrying projectile:

Letters from Lieut. Marcus W. Lyon, U. S. A., with a rough sketch of the device, as referring to caliber .45-inch rifles or revolvers, was submitted to the Board. The Board directed the recorder to write to Lieutenant Lyon and inform him that if he prepare and present to the Board samples of his shot adapted to the 2.5-inch gun now in service they will be tested and reported upon.

The Board expressed the opinion that the application of this projectile, using caliber .45-inch rifle or revolver, is not adapted to the requirements of the service. The president appointed the following committee to test and report upon the Lyon-Gordon line-carrying projectile when the samples have been submitted, viz, Capt. J. H. Merryman, Capt. D. A. Lyle, and Keeper J. C. Patterson.

12. The next in order was Daniel Dwyer's life-saving steam launch.

No model was submitted, a short description only being given.

From the data before it the Board is of the opinion that the design is entirely impracticable for the uses of the service.

13. John M. Richardson, Superintendent First Life-Saving District (Maine):

Galvanized iron row-locks for life-boats.

A sample of this row-lock was submitted. This row-lock possesses considerable merit, but such is the diversity of opinion among surfmen in regard to row-locks that the Board is unwilling to recommend it for general adoption in the service. It is within the knowledge of the Board that this device would not be acceptable to a large proportion of our surf crews.

14. George A. Leavitt, jr.'s emergency life-boat plug:

Brass samples of this plug were submitted. The cap of one of the samples could not be moved. The device is liable to corrode, and, unless the cap is turned frequently to prevent such corrosion, it would not be easy to open or close the vent.

After an interchange of views, the Board arrived at the conclusion that this invention is not adapted to the needs of the Life-Saving Service.

At 3.45 p. m. the Board adjourned until 11 o'clock to-morrow, November 16.

THOMAS D. WALKER,
Recorder.

THURSDAY, *November 16, 1882.*

The Board reassembled as per adjournment, all the members being present.

15. After the reading and approval of the minutes, the first business taken up was the "Vacuum gun of '82", submitted by S. Fox, of Toledo, Ohio. Drawings, photographs, and a description of this invention were placed before the Board.

After an examination of the details of this invention, Mr. Fox appeared in person and explained certain features of the gun, regarding which the Board desired specific information not contained in his description.

It was ascertained that the probable cost of the gun and appurtenances complete would be \$1,000, and that it could only be made with tools designed specially for such work. The weights estimated by Mr. Fox would be as follows:

	Pounds.
Gun, about	1,400
Carriage, about	200
Bed, about	200
Boat or projectile, about	100
Making a total of	1,900

After due discussion of the claims of the inventor, the Board came to the conclusion that the device is chimerical, and that its further consideration is unnecessary.

16. John Rider's clipper life-boat and raft (description and drawing):

The inventor appeared and explained its principles, and made verbal

application for authority to visit a designated station and impart such instruction as may be necessary for a thorough trial of his raft.

The familiarity of individual members of the Board with life-rafts generally, led to an expression of the opinion that the Board cannot recommend the further introduction of such devices into the service, as they are better adapted to use on ship-board than for the purposes of the Life-Saving Service.

In view of the foregoing it was declared to be the sense of the Board that it cannot favorably indorse Mr. Rider's request that his device be further tested by the employés of the service.

17. Alonzo T. Boone's method of life-boat propulsion by compressed air:

A model and descriptive letter were laid before the Board. This device is essentially a life-raft, the air cylinders being three in number, secured together by cross-beams or thwarts, with a covering-board or gunwale extending entirely around it, the latter being surmounted by a light hand-rail for the safety of the occupants of the raft. The central cylinder is specially designed as the receptacle for the motive power, which is to be furnished by an engine on shore.

After discussion of the features of Mr. Boone's device, especially the method of propulsion, the Board expressed the opinion that it is impracticable for the uses of the Life-Saving Service, and its adoption is not therefore recommended.

18. Nathaniel E. Gould, keeper at Station No. 13, Second District (Chatham, Massachusetts):

A letter from Mr. Gould, referred to the Board by the General Superintendent, was then submitted.

The writer suggested a change in the method of laying up cordage for the Life-Saving Service, the hawser to be twisted right-handed and the whip-line contrariwise, or to the left, to prevent the two lines fouling or twisting together in the surf between a stranded vessel and the shore.

The Board learned that this subject had received the attention of the officers of the service prior to the receipt of Keeper Gould's letter, and that the cordage now manufactured for the service is laid up in the way suggested. Under these circumstances no action was deemed necessary on this subject.

19. David P. Dobbins, Superintendent Life-Saving Stations, Ninth District (Buffalo, New York), submitted the following:

1. Self-righting surf-boat.
2. Self-righting, self-bailing, and self-ballasting life-boat.
3. Self-righting life-car.
4. Firing-plank for Lyle gun or mortar. (Model.)
5. Double whip-reel for mortar-cart. (Model.)
6. Detachable thills for mortar-cart. (Model.)
7. Detachable bails for life-car.
8. Open runner block for breeches buoy or life-car. (Model.)

No models of the boats designed by Mr. Dobbins, were submitted, but the inventor stated that four boats constructed after plans of his design are now in service at stations upon the lakes. Upon the question of the appointment of a committee to examine and test their merits the inventor expressed the desire that the trials be made before the full Board.

Mr. Dobbins explained at length the advantages derived from the use of the firing plank, double whip-line reel, detachable thills for the hand-cart, and detachable bails for life-cars, each of the stations in his dis-

strict being provided with them; the runner-block and water ballasted life-car being in use at Station No. 5 (Buffalo) only.

Pending a discussion of the merits of the several devices presented by Superintendent Dobbins, the Board adjourned at 4. P. M., until 11 o'clock to-morrow.

THOMAS D. WALKER,
Recorder.

FRIDAY, *November 17, 1882.*

The Board reassembled as per adjournment, all the members being present.

• The minutes of yesterday's session were read and approved.

The Board received a communication from Mr. R. C. Stone, inviting it to witness experiments with the Fryer buoyant propeller-ship at Hastings on the Hudson, New York.

The letter was laid over until the Board can have an opportunity to witness the experiments; the recorder being instructed to so notify Mr. Stone.

The following cases were then taken up and postponed for future consideration, viz, Dobbins self-righting surf-boat; Dobbins self-righting, self-bailing, and self-ballasting, surf-boat; Ottinger's sand-wheel.

A communication from Mrs. T. D. Pratt, of East Boston, Massachusetts, was then read, relative to a plan of boat for distributing oil upon the surf, illustrated by a paper model and drawings.

Upon motion it was placed upon the docket and referred to the committee on experiments with the use of oil upon rough seas (Superintendent Sparrow), for examination and report.

(The letter of Mrs. Pratt was delivered to the committee.)

20. Turner's improvement in surf-boats:

This case was continued from the last meeting.

As nothing additional has been received by the Board relative to this subject the papers were ordered to be returned to the General Superintendent of the Life-Saving Service with report that present action is deemed unnecessary until further data is presented.

21. J. L. Bryant's double life-boat:

The recorder was directed at the last meeting of the Board to notify Mr. Bryant that upon his presenting a properly equipped boat for the trial, his device could then be examined and reported upon.

As no reply has been received from Mr. Bryant, the Board decided to continue the case until its next meeting.

22. The Board then resumed the consideration of the devices presented by Superintendent Dobbins, as follows: Open runner-block for life-car or breeches-buoy; detachable thills for mortar-cart; detachable bails for life-car; double whip-reel for mortar-cart; self-righting life-car; and firing-plank for Lyle gun or mortar.

After discussing the merits of these appliances and improvements it was decided by the Board to recommend them for adoption in the service, their usefulness being obvious.

23. Uniform for crews:

This subject was referred, at the last meeting, to a committee of the entire Board.

Keeper Patterson submitted a report with drawings and estimates, which was accepted and placed on file.

After some discussion the designs presented by Mr. Patterson were approved and it was decided to transmit the same to the General Superintendent with a recommendation for their adoption in the Life-Saving Service.

The Board having acted upon all subjects properly before it, Captain Merryman presented the following resolutions, which were adopted unanimously:

Resolved, That the General Superintendent of the Life-Saving Service be requested to extend the thanks of the Board on life-saving appliances to General S. V. Benét, Chief of Ordnance, U. S. A.; to Col. T. G. Baylor, Ordnance Department, U. S. A., president of the Ordnance Board, and to Capt. W. S. Starring, Ordnance Department, U. S. A., in charge of the proving ground at Sandy Hook, New Jersey, for the great assistance they have rendered the Life-Saving Service and the many courtesies they have extended to the Board and its committees in making their experiments at Sandy Hook.

And be it further resolved, That a copy of these resolutions be spread upon the record for publication with the proceedings of the Board.

The Board then proceeded to the consideration of its general report and when that was completed and signed by all the members, the Board adjourned *sine die*, at 4 P. M.

THOMAS D. WALKER,
Lieut. U. S. R. M., Recorder.

II.

COMMITTEE REPORTS.

I.—GERMAN LIFE-SAVING ROCKETS AND ROCKET APPARATUS.

The trials of the German anchor and life-saving rockets and rocket apparatus took place at Sandy Hook, New Jersey.

The committee was much embarrassed by the inclemency of the weather; rains, dense fogs, and unfavorable direction of wind causing more or less delay. The direction of the wind in most instances was very unsatisfactory. The experiments were also interrupted from time to time by the firing of the Ordnance Board of the Army, by whose courtesy the proving ground at Sandy Hook was placed at the disposal of the committee. While that Board was firing, the life-saving experiments had to cease for the time being, as they had to be conducted upon the same range.

1.—8^{cm} ANCHOR ROCKET.

The ranges obtained with this rocket were very good considering the weight of the projectile and the large surface exposed to the action of the air. Only one of these rockets exploded. The wind was favorable to the increase of range. The crew of Station No. 1, District No. 4, doubt their ability to pull out a boat by the line in a heavy surf, since the vertical motion of the boat as it rises and falls on the breakers would in many instances be so sudden as to jerk the surfman overboard.

Where the distance to the stranded vessel was not too great the rocket might be fired over it and the line hauled in by the crew on shore

until the anchor flukes caught on the side of the vessel or in the rigging, thus establishing communication when the vessel's crew was too benumbed by cold to haul in the rocket-line with the whip attached. The erratic flight of the rocket and the high angle of elevation under which it must generally be fired render the results more or less uncertain.

2.—8^{cm} LIFE-SAVING ROCKETS.

The ranges of these rockets were very good, but they are so heavy that high angles of elevation are necessary to obtain them. Only one exploded and that was probably owing to the rocket striking a timber and cracking the composition so as to allow the penetration of the flame between the case and composition.

The deviations of the rockets and the drifts of the lines are small on account of the favorable direction of the wind and the weights of the rockets and lines.

The surface of the rocket is so great that a cross-wind or one with a considerable inclination to the line of fire would be likely to carry the rocket very considerably from that line.

3.—5^{cm} LIFE-SAVING ROCKETS.

These rockets do not give as good results as the 8^{cm} rocket, and being lighter and of less caliber, they are much less effective. Seven out of thirty-one exploded in the stand. This is a loss of a little over 22½ per cent. The explosion in each case was towards the front. The only effect was to settle the stand into the sand, lowering its elevation from 1° to 3°, and to scatter sand and small pieces of the front end of the body in all directions. The heads in every instance were driven to the front, distances varying from 75 to 100 yards—in one case 125 yards.

The pasteboard cap and fuse tube at the rear end was blown backwards with sufficient force to injure a man, especially should he be struck in the eye. The explosions demoralized the crew and caused them to seek cover in every instance when about to fire.

The jarring in transportation loosens and cracks the composition, which, together with the expansion and contraction due to the violent changes of temperature along our coast, renders these rockets exceedingly uncertain in their action.

The packing-boxes containing but four rockets are light enough to be handled by one man, and are consequently jarred much more in being deposited on wharves and floors than are boxes containing four 8^{cm} rockets that are much heavier and require two men to handle them readily. This fact was observed here in noting the movements of the crew in handling them.

All of the German rockets (manufactured in 1877) are excellently made and are the best rockets that the committee have ever used. The greatest care has been observed in packing them in tin-lined cases soldered to make them air and water tight. It is the opinion of the committee that no better nor simpler rocket apparatus than the German exists.

4.—ROCKET STAND.

At the end of the experiments the legs of the stand were badly cracked and sprung. The brass plate at the rear end of the trough against which the rocket stick abuts was broken off during one of the explosions. The stand was satisfactory, except that it was difficult to set it at lower elevations than 30° without forcing the legs deep in the sand. This would be difficult if not impossible with the ground or sand frozen.

5.—FIRING STAFF AND FIRING LOCK.

These implements gave perfect satisfaction.

6.—PILLENLICHTE.

Not one of these lights failed during the experiments.

7.—GERMAN ROCKET LINE.

This is a hemp line, twisted somewhat loosely. It is composed of three strands of four yarns each. Its character is about the same as that of a No. 9 Silver Lake line, but the weight for equal lengths is not so great.

The life of the line is much less than that of a braided linen line. Each of the German lines had to be spliced during the experiments, and at the close of the trials they were pretty well used up.

8.—GERMAN FAKING BOX

This is too heavy and too complicated. The false bottom being fastened to the box renders it necessary to fake the line with the pins in the box, which is not only inconvenient but injures the knuckles of the faker. This arrangement causes the pins to be drawn together more than in the service box and gives great trouble in freeing the line from the pins in preparing for firing. While superior to the service box in strength, due to the greater amount of material used in construction, it is not nearly so simple or convenient.

9.—REMARKS.

Full descriptions of this apparatus will be found in the annual report of the Life-Saving Service for 1880. The following tables and transcript of notes from the firing record give the results of the trials at Sandy Hook, New Jersey:

11849—28

EXPERIMENTS WITH LIFE-SAVING APPARATUS AT SANDY HOOK, NEW JERSEY.
EXPERIMENTS WITH GERMAN LIFE-SAVING ROCKETS.

10.—Record of firings with German 8cm anchor rockets and apparatus.

Date.	No. of round.	Elevation.	Kind of rocket stand.*	Life-saving rocket.			With whistling.	Shot-line.			Faking-box.		Range.	Deviation of rocket, right or left.	Drift of line at 300 yards, stake, right or left.	Drift of line at 200 yards, stake, right or left.	Time of firing.	Time of flight.	Wind.
				Caliber.	Kind.†	Total weight, rocket, stick, and chain.		Material.	No. of line.	Action.	Kind.	Size.							
1882.		°		Om.	Pounds.														
20	1	34	...	8	48	Pillenlicht	Italian hemp	10	Good ...	Sheet-iron.	A	368½	110 R.	120 R.	...	...	2.30	Not taken.	
20	2	34	...	8	48.5	...	Linen, W. P.	6	...do ...	Wood	A	407	94 R.	97 R.	70 R.	...	3.30		
20	3	27.5	...	8	49	...	Italian hemp	10	...do ...	Sheet-iron.	A	(1) 300	...	...	...	...	3.45		
24	4	28	...	8	48	...	German	9	...do ...	German ⁹	...	338	150 L.	94 L.	29 L.	...	a. m.	5½	
24	5	25.5	...	8	48	...	...do ...	9	...do ...	...do	...	265	127 R.	...	88 R.	...	10.15	Lost ...	
24	6	35	...	8	48	...	Italian hemp	10	...do ...	Sheet-iron.	A	384	17 L.	53 R.	44 R.	...	10.29	6½	
24	7	35	...	8	48.5	...	Linen	7	...do ...	...do	{ A B	453	53 R.	79 R.	56 R.	...	10.36	8½	

* German. † Anchor. ‡ The arrows fly with the wind.

REMARKS.—The velocity of the wind was obtained by Robinson's anemometer and Lieutenant Gibbon's self-registering apparatus, at the Sandy Hook office of the Ordnance Board.

The shot-lines used were the Silver Lake Company's braided lines and the German twisted hemp lines.

ABBREVIATIONS: R., right; L., left; W. P., water proof.

ANCHOR ROCKETS:

Distance of center of gravity from rear end of base, without stick and before firing..... 22" 375

Distance of center of gravity from rear end of base, with stick and before firing..... 17" 26 } chain not included.

11

Velocity per
hour.

Miles.
24

28

28

28

24

24

24

20

24

24

24

24

11.—*Synoptical transcript of notes from the firing record.*

GERMAN ANCHOR ROCKETS FOR LIFE-SAVING PURPOSES.

Date.	No. of round.	
1882.		
Oct. 20	1	Struck on sandy beach; anchor head bent by shock of fall. Of the assembling screws which fasten the anchor-head to the body of the rocket, one was broken off and two started by the shock of fall.
20	2	Anchor-head bent and nearly broken off the rocket body which serves as a shank for the anchor.
20	3	Fired out to sea. Anchor firmly imbedded. The member of the crew who hauled out a boat using the line attached to the anchor rocket reported that the anchor "held well" and did not slip until the boat was within 30 yards of it. The inshore current produced a heavy strain upon the line, and when an attempt was made to hold the line taut, one man (weight 157 pounds) could not hold it.
24	4	The German faking-box containing the line was placed 5 feet to the right and just in rear of the rocket stand.
24	5	The German faking-box and line were placed 4 feet to the left and just in rear of the stand. The anchor rocket exploded before it reached the farthest point of the trajectory. The head was blown off and the rocket fell to the ground. This fact and the lesser elevation account for the diminished range.
24	6	The sheet-iron faking-box A with line was placed 4 feet directly in front of the rocket stand.
24	7	Line in sheet-iron faking-boxes A and B. Box A placed 4 feet in front of stand, and box B 4 feet to the right of the stand.

Two anchor-heads, besides those named above, were bent on striking the sand. This was not reported at the time of firing and was learned after the firing had ceased.

The anchor-shanks bent belonged to two of the rockets fired October 24.

The German lines were made of hemp, and consisted of three strands of four yarns each. These lines are twisted. Diameter of line after repeated firings 0''.288, equivalent to a No. 9 Silver Lake line, but having less weight. The diameter of the line before firing was 0''.31; the reduction in diameter is due to the stretching of the lines in firing.

13.—*Synoptical transcript of notes from the firing record.*

8-CENTIMETER GERMAN LIFE-SAVING ROCKETS AND STAND.

Date.	No. of round.	
1882.		
Oct. 20	1	German faking-box and line placed 4 feet in front of stand. All the line was carried out. The end of the line was found over 50 yards to the front.
24	2	Sheet-iron faking-box A used to contain line. It was placed 4 feet in front of stand. Line all carried out; end found 75 yards down the range.
24	3	Same remark, except end of line found about 100 yards down the range. NOTE.—From this time to the end of the experiments with 8 ^{cm} rockets, the faking-box and line were invariably placed 4 feet directly in front of the stand.
24	4	Line broken near box; rocket lost. Range, without line, unknown.
24	5	No remarks.
24	6	A portion of the line was placed in sheet-iron box A, part in sheet-iron box B, and the remainder in a wooden tray. The line in box B was in small fakes, while that in box A and the tray was in large fakes. All the line except five fakes was carried out.
24	7	Line in German faking-box and in tray. All the line except the last tier of fakes was carried out. The line contained four bad kinks, due to the catching of the fakes in running out.
24	8	All the line carried out. End of line 45 yards in front of firing point.
25	9	No remarks.
25	10	No remarks.
25	11	Sheet-iron faking-boxes A and B used. Box B on a line with front end of stand and on its right.
25	12	Same remark.
25	13	Sheet-iron faking-box A used.
25	14	Same remark.
25	15	Sheet-iron faking-box A used. Line all carried out; end over 100 yards in front of stand. One small kink found in the line.
25	16	} No remarks.
25	17	
25	18	

13.—*Synoptical transcript of notes from the firing record*—Continued.

Date.	No. of round.	
1882. Oct. 27	19	Line all carried out except four fakes. Line had one strand spliced which had broken in a previous round. German faking-box heavy and very inconvenient, as the false bottom is fastened to the box. This necessitates faking with the pins in the box. The knuckles of the faker are brought in contact with the sides or ends of the box at every turn of the line, soon bruising them and making them sore. The effect is to cause the faker to draw the line tighter than he otherwise would. This draws the pins together and renders it difficult to withdraw the faking-pins when preparing for firing. Several minutes were sometimes occupied in attempts to remove the frame and pins.
27	20	Line parted at splice. Range of rocket about 960 yards. The end of the line where found upon the ground was recorded as the range in this case.
27	21	One tier of fakes left in the box. One strand of line spliced. Great difficulty experienced in getting faking-pins out.
27	22	One tier of fakes left in box.
27	23	Line broken near faking-box, probably at a splice. Range of rocket unknown, but it was over 800 yards.
27	24	} No remarks.
27	25	
27	26	
27	27	
27	28	} Sheet-iron faking-boxes used to contain line in each instance. Boxes A and B both used.
27	29	Sheet-iron box A used. Line broke and rocket went down the beach. Range unknown.
28	30	This and the three following rockets were fired in an attempt to get the velocity of the rockets instrumentally with the Boullengé chronograph. No line attached. Flight erratic. Rocket cut the wires of the 1st target after ricochet, and then went over 2d target.
28	31	No line attached. Flight erratic. Rocket ricocheted in front of 1st target, and then missed both targets. Rocket exploded and blew off head 200 yards from firing point.
28	32	Hemp line No. 7 attached to rocket. Line broken. Rocket ricocheted, went under 1st target, cut wires of 2d target, then turned towards the right and struck a firing butt 300 yards away. The rocket pierced 3" of spruce forming the face of the butt and imbedded itself 2 feet in packed sand.
23	33	Hemp line No. 7 used. Rocket cut wires of 1st target and passed under the 2d target. Line cut by 1st target. Flight very erratic.

In rounds Nos. 30 and 31, the rocket-stand was laid upon a table about 4½ feet high. In rounds Nos. 32 and 33, the rocket-stand was placed with its rear end upon the ground and the front end upon a block of wood. The stand does not admit of small elevations. The first target was placed 52 feet from the rocket-stand. The distance between the targets was 25 feet. The targets were 6 feet by 6 feet, and had pins for the wires placed 2 inches apart; but the wires were so wound that the distance between the individual wires was about 1½ inches.

The velocity of the rocket was so low in the beginning of the trajectory that the weight was sufficient to cause them to dip and strike the sand at from 20 to 40 feet in front of the stand and then ricochet. In round No. 31, the explosion was probably caused by the rocket striking and passing through a spruce timber 6 inches thick, distant about 150 feet from stand.

The shock probably loosened and cracked the composition, thus letting the flame penetrate between the case and the charge. The evolution of gas was too great for the case to sustain, and the head was blown off.

The result of this experiment for velocity was a failure. Even had it been successful the velocity obtained would not have given the full information desired, since the velocity of a rocket is accelerated in the first part of the trajectory. It does not reach its maximum velocity until after it has proceeded some distance from the firing point.

With larger wire-targets, placed at greater distances from the firing point, some results of interest might be obtained. The committee lacked funds to furnish the requisite facilities for success.

— | Date.
188
Oct.

The committee has appended to this report a paper on the general subject of "rockets," their classification, history, and manufacture, compiled from various sources by Capt. D. A. Lyle, Ordnance Department, United States Army. It is marked A.

Respectfully submitted.

Sandy Hook, N. J., November 6, 1882.

D. A. LYLE,

Captain of Ordnance.

JOHN C. PATTERSON,

Keeper, Station No. 1, Fourth District, L. S. S.,

Committee.

To the PRESIDENT OF THE BOARD ON LIFE-SAVING APPLIANCES.

A.

ROCKETS, THEIR CLASSIFICATION, HISTORY, AND MANUFACTURE.

By Capt. D. A. LYLE, *Ordnance Department, U. S. A.*

DEFINITION.

A rocket is a cylindrical tube of paper or metal filled with a compressed mixture of niter, sulphur, and charcoal.

The projectile force is generated within the rocket itself by the ignition of the compressed composition and the consequent evolution of gas due to combustion. The vent in the base permits a partial escape of the gas and develops a difference of pressure upon the head and base of the rocket. This excess of pressure forms the propelling force. The rocket therefore performs the twofold function of projectile and piece.

CLASSIFICATION.

Rockets may be classed as—

1. Sky-rockets, a pyrotechnic device for public display.
2. Signal-rockets, fired straight upward and not differing from ordinary rockets.
3. Life-saving rockets, to convey lines to stranded vessels.
4. War-rockets, in which the charge may amount to 32 pounds.
5. Whale-killing rockets, in which the charge may be 2 or 3 pounds.
6. Submarine rockets.

The sky-rocket's terminal display depends upon the garniture or decorations contained in the *pot* at the head of the case.

The decorations may be—

- | | |
|--------------------|--------------|
| 1. Stars. | 5. Vetilles. |
| 2. Golden showers. | 6. Petards. |
| 3. Serpents. | 7. Saxons. |
| 4. Lardons. | 8. Crackers. |

COMPOSITION—UNITED STATES MILITARY SERVICE (KNIGHT.)

26 parts niter.

5½ parts sulphur.

19 parts hard-wood charcoal, preferably maple.

The first two pulverized and mixed by hand and forced through a sieve having about 25 meshes to the inch. The charcoal should be moderately pulverized; it is then added and incorporated by hand.

GENERAL CONSTRUCTION.

A rocket consists essentially of a cylindrical case of strong paper or metal containing an inflammatory composition made of niter, sulphur, and charcoal, the same ingredients as those used to form gunpowder, but so proportioned as to produce a slower rate of combustion. To one end of the case is attached a conical or cylindro-conoidal head; the other end is pierced with one or more vents or holes for the escape of the burning gases evolved by combustion. The composition is driven into the case, over a conical spindle, thus leaving a conoidal cavity in the rear end of the rocket whose base is coincident with that of the rocket. The object of this cavity is to furnish a large surface of inflammation when the composition is ignited, and thus facilitate the generation of large quantities of gas during the first instants of combustion.

THE PROJECTILE FORCE.

The quantity of gas generated in the case by the ignition of the large surface exposed to the action of the flame is so great that it cannot escape from the vent or vents as rapidly as it is formed, and therefore produces a pressure in every direction upon the interior surface of the rocket. These pressures in a lateral direction, on the sides of the rocket, mutually balance each other, and consequently produce no motion in directions perpendicular to the axis of the rocket. The pressure on the head of the rocket is greater than that on the base, since the vents in the latter allow a portion of the gas to escape. This excess of pressure on the head over that on the base causes the rocket to take up a motion in the direction of the greatest pressure, or, in other words, causes it to move forward in the direction of its longitudinal axis. This pressure continues to be exerted so long as any of the composition in the case remains unconsumed.

MOTION.

The motion of the rocket in its trajectory is accelerated during the early part of its path. The ordinary rocket has a long stick attached either to the base or side of the rocket to guide it in its flight. In this case the rocket has no rotary motion, and the stick, by the surface which it opposes to the resistance of the air, obviates the tendency of the rocket to rotate about one of its shorter axes, and serves to maintain the flight in the direction in which it is fired. In order to secure the greatest accuracy of flight the stick should be attached in the prolongation of the axis of the rocket. Another means for securing steadiness of flight is by giving the rocket a rotary motion about its longer axis. This rotary motion is imparted by a special arrangement of the vents, as will be shown hereafter. It is evident, since the propelling force is *constantly* acting until the composition is burned out, that any deviation of the rocket from its original direction will be aggravated, as the propulsive effect will be exerted in the new direction.

HISTORY.

The date of the invention of rockets is enveloped in obscurity. There seems to be no doubt but they were known and used in China and

India before the discovery of gunpowder. Some authors place the date of their invention "about the close of the ninth century"; others dismiss the subject by saying they have been known in the Oriental countries "from time immemorial." It has been supposed that war-rockets were employed against the forces of Alexander (of Macedon) "at the farthest point of his eastern advance" in India, 327 B. C. Knight says:* "The first European author by whom they are mentioned is Marcus Græcus,† who, writing in the eighth [ninth] century, says that if a compound of niter, sulphur, and charcoal be tightly rammed into a long, narrow tube and set fire to, the tube will fly through the air."

They are said to have been employed against the Crusaders by the Saracens. The former probably introduced them into Western Europe.

1380. War-rockets used by the Venetians.

1449. War-rockets used by the French.

It is believed that Desaguliers first proposed to use rockets in modern warfare, but it remained for Colonel (afterwards Sir William) Congreve to first employ them in actual service, in 1803.

Congreve's rocket used:

1806. These rockets first employed in the attack on Boulogne.

1807. In attack on Copenhagen.

1813. By British rocket-troop at the battle of Leipsic.

1814. By British at battle of Bladensburg.

1847. Hale's rocket used by United States Army in Mexican campaign.

Rockets were used by the English against Theodore, King of Abyssinia, during the invasion of that country.

"A few rocket batteries were organized in the early part of the late war, but most, if not all, of the material was subsequently turned into store. Rockets are, in fact, not adapted for use in a wooded country, not being susceptible of great accuracy of aim, and, being diverted from their course by the slightest obstacle, they produce but little effect on disciplined troops, and are only available for firing buildings or frightening cavalry horses."—(KNIGHT.)

War-rockets are fired from a trough or tube which has usually a stop near the muzzle end to detain the rocket until sufficient propulsive power is developed to insure its starting in the proper direction. The tube is sometimes mounted on a tripod stand; pivoted so that the required direction and elevation can be given, or it is mounted on a carriage after the manner of a field-piece, in which case it is sometimes called a rocket-gun. The tube has been made of rods of iron, twisted spirally, so as to form a kind of lattice, imparting a rotary motion to the projectile. It has also been proposed to accomplish this object by flanges on the rocket itself.

"It has never been found possible to make the rocket a weapon of accuracy in the air, for the simple reason that through the consumption of the composition the implement is continually growing lighter and the position of the center of gravity is constantly changing."‡

Submarine rockets.—Captain Ericsson, with the "Destroyer," discharged below the water-line a huge bolt about 20 feet long by means of compressed air. He succeeded in driving it 200 feet with a velocity

* Mechanical Dictionary.

† "Liber Ignium," by Marcus Græcus, written about A. D. 825, in which he describes rockets.

‡ "Progress of Torpedo Warfare," by Lieutenant-Commander F. M. Barber, United States Navy, in United Service Magazine.

of 60 miles per hour. Mr. Weir, of New York, is said to have been remarkably successful with some small-sized water-rockets of peculiar design.

Congreve rockets. [Plate IV, fig. 2.]—Rockets were of little practical utility until about the beginning of the present century, when Sir William Congreve introduced improvements in their manufacture, and proposed for service five different kinds of rockets, viz, 3, 6, 12, 24, and 32 pounders. The latter were not retained, however.

Congreve's signal-rockets had paper cases and had the stick attached to the side by wrapping with twine. This form had one large central vent. The case of the Congreve war-rocket was made of sheet iron, and the composition was more powerful than that used for ordinary rockets. The interior of the case was protected by anti-corrosive paint. A paper lining similarly treated preserved the composition from contact with the case. The cylindro-conoidal head was hollow, and could be filled with powder when it was intended to act as a shell. The 12 and 24 pounders could be used as carcasses by substituting a conical head with six vents and filling it with carcass composition. The heads of rockets, except those intended for carcasses, had a fuse fixed in the base of the shell, and a small hole was left in the apex of the head for the introduction of a boring-bit used to bore into the fuse composition. This hole was closed by a small brass plug, easily removable for the purpose of inserting the bursting charge of powder.

For long ranges the fuse composition was not bored out, but for "the short ranges the whole of the fuse composition and part of the rocket composition was bored through to within 1".5 of the top of the hollow cone in the 24-pounder rocket, and to within 1" in the other natures." The bottom of the case was closed by an iron disk. An axial hole in this disk received the guiding stick. Five equidistant holes or vents for the escape of gas were bored circumferentially around the axial hole. This method of attaching the stick was a great improvement over the old way of fastening it to the side of the case.

Congreve rockets were used by the British at the battle of Bladensburg, near Washington, in 1814. "Flights of these rockets scared the raw militia, and two regiments broke and fled in the wildest confusion." Rockets were also used at Baltimore by the rocketeers of the British army.

Rocket vessels were employed at the bombardment of Fort McHenry, Maryland, in 1814.

Hale rockets. [Plate IV, fig. 1.]—This projectile dispensed with the stick. It is a modification of the Congreve rocket, and was originally made with a central aperture at the rear, through which the gas escaped, surrounded by small tangential apertures for imparting a motion of rotation, which thus tended to preserve accuracy of flight without the use of a guide stick; but "it sometimes happened that immediately after starting one would diverge from a straight course and, perhaps, turn completely over, returning toward the place whence it was fired.

"To obviate this, Mr. Hale placed the tangential directing apertures near the head instead of at the base of the rocket."

They were filled with composition, as follows:

"Niter, 10 parts; sulphur, 2 parts; charcoal, 3 parts. This inserted in charges of about 3½ ounces each, which are successively compressed by a screw or hydraulic press under a force of 20 or more tons per square inch. A hole is bored axially through the composition and afterward reamed out conically, tapering toward the head."

Fig. 1. Hule (1855, U. S.) War Rocket.

Fig. 2. Congreve War Rocket

Fig. 3. American Signal Rocket

Fig. 4. English Signal Rocket.

LIFE-SAVING APPARATUS.
 CONGREVE & HALE (1855) WAR ROCKETS.
 AMERICAN AND ENGLISH
 SIGNAL ROCKETS.
 1861.

Fig 1 Walbach Rocket

Fig 2 Hunt Rocket



Fig 3 Detwiller Rocket



LIFE-SAVING APPARATUS
WALBACH, DETWILLER

HUNT ROCKETS.

1861.

RANGES (KNIGHT).

12-pounder.	6-pounder.	Yards.
○	○	
.....	7½	400
.....	8½	500
10	9½	600
11½	10½	700
12½	11½	800
13½	11½	900
14	12½	1,000
14½	13½	1,100
15	14	1,200
16	14½	1,250

Hunt's rocket. [Plate VI, fig. 2.] (Knight).—This rocket has no stick to guide it. A rotary motion is imparted by spiral wings, A, on the rear end of the case or tail-piece. A small bursting charge is placed over the composition in the case to separate the head at the termination of the upward flight; this explosion ignites the quick-match leading to the cylindrical part of the head, which is filled with various decorations, together with a small charge of powder. A second explosion follows, freeing and igniting the contents of the head. The rocket is fired by the action of a lanyard pulling a slide over friction composition.

Walbach's rocket. [Plate VI, fig. 1.]—This rocket has wings, and has the head filled with powder and bullets. A percussion tube projects axially from the front, which fires the charge the instant the rocket collides with or strikes any object. An elbow on one side insures the ignition of the charge in case the point does not strike. "A balancing piece on the threaded tail has spiral projections which cause it to traverse towards the rear under the impulse of the blazing composition and preserve the equilibrium as the composition is expended."

Detwiller's signal rocket. [Plate VI, fig. 3.]—This rocket has a series of cups containing different-colored fires. These cups are interchangeable, so that various combinations of colors can be made and fired in any desired succession when the head is exploded.

MANUFACTURE OF ROCKETS.

SIGNAL ROCKETS.

Rockets for signal purposes are composed of a paper case charged with composition, a pot filled with ornaments, and a light stick to give direction. The size of the rocket is made known by the interior diameter of the case. The most common sizes are the 0.75 inch, 1 inch, and 1.5 inch.

To make the rocket case:

Materials.

1. No. 4 paper.

2. Paste.
3. Strong twine.

Implements.

1. Awl.

2. Ruler.

3. Knife.

4. Sandstone.

5. Rolling-bench.
6. Press and crank.

7. Choking-machine.

8. Gauge for the case.

9. Paste-brush.

10. A former.

Operations.

1. *Cutting the paper.*—Lay off the paper into rectangles, their width equal to the length of the case, pricking with the awl the four corners of several sheets at once; cut them with the knife. Each sheet of No. 4 paper will make two rectangles for a .75 inch or for an inch rocket by cutting it parallel to the short or long side, respectively.

2. *Rolling the case.*—Roll the rectangle smoothly upon the former, pasting the paper after the first turn; put the case and former in one of the grooves in the press; slip the crank on the square end of the former and turn it, the top of the press bearing on it slightly at first. Paste the second rectangle, insert one end under the last rectangle, and roll it as at first. If there be no rocket-press at hand, a long hand-rolling board may be used instead.

3. *Gauging.*—Gauge the case to see that it is the size of the mold.

4. *Choking the case.*—Wrap a piece of strong paper around the end of the case to be choked; this will prevent the chafing of the case by the cord. Take a turn around the case with the choking-twine and press on the treadle, turning the case at the same time and drawing out the small part of the former as the diameter of the paper case contracts. Fasten the choke by wrapping it with several turns of strong twine, drawing it firmly and tying in a hard knot.

5. *Drying.*—Lay the case away in the shade until perfectly dry.

To fill the case:

Materials.

1. Empty cases.
2. Rocket composition.
3. Clay or plaster of Paris.

Utensils.

1. One mold and spindle.
2. One block of wood, settled in the ground.
3. Three hollow drifts bored to admit the spindle.
4. One solid drift.
5. Mallets.
6. Knives.
7. Saudstones.
8. One charging-ladle of such size that its contents when driven in the case shall be a diameter in height.

Operations.

1. *Cutting off.*—Cut off the short end beyond the choke to such length that when the case is settled down on the spindle the choke will fit closely over the nipple and the end of the case rest on the base of the spindle.

2. *Putting the case in the mold.*—Slip the case over the spindle with the choked end down; settle it in position with two or three blows of the mallet; set the mold over the case and key it down.

3. *Driving the rocket.*—Take a ladleful of composition, strike off the surplus, and pour it into the case. Use first the largest hollow drift, and give each ladleful 25 or 30 blows with the mallet, *keeping the drift down on the composition.* As the case fills, use the shorter drifts until the composition reaches the top of the spindle; then drive one diameter in height with the solid drift, cover this with a patch of stiff paper cut to fit the case, and over this patch drive a wad one-third diameter high, of clay or of plaster of Paris, slightly moistened with water.

4. *Priming*.—Insert in the bore of the rocket one end of a piece of quick-match, 2 feet long, with a small piece of paper attached, and push it in securely; coil the rest of the match in the bore and bottom of the case. To protect it from moisture, paste over the end of the case a circular cap of strong paper.

Rockets are sometimes driven solid throughout, and afterwards bored and reamed out with a reamer of the form of the spindle. This is usually done with large rockets, such as war and life-saving rockets. In filling these larger rockets the composition is generally packed in the case by means of an hydraulic press.

Precaution.—To guard against accidents, drive the rockets in an empty room, or in fair weather use a tent or shed for a driving-room. Let there be no powder or composition in the room except that to be used at the time. Leave no filled rocket-cases lying around the room.

To make the pots:

Materials.

- | | |
|-----------------|-----------|
| 1. No. 4 paper. | \| 2. Paste. |
|-----------------|-----------|

Utensils.

- | | |
|-------------------|--------------------|
| 1. Knife. | \| 4. Bowl for paste. |
| 2. Former. | \| 5. Brushes. |
| 3. Rolling-board. | |

Operations.

1. *Cutting out*.—Cut the rectangle of the proper size as shown by the pattern.

2. *Rolling*.—Roll the rectangle on the former, pasting it after the first turn. Press the case firmly by rolling it on a table with a hand-rolling board. Withdraw the former and place the cases in a box to dry.

3. *Attaching the pot to the case*.—Paste the pot on the inside the distance of one-half of a diameter, and also the outside of the case, at the end containing the clay or plaster of Paris, for the same length; slip the pot on the pasted end, leaving the length of the pot above the top of the case one and a half diameters. To secure the pot in place and give a neat finish, cover the rocket case and pot when dry with thin paper pasted on.

To make the cones:

Materials.

- | | |
|-----------------|----------------|
| 1. No. 4 paper. | \| 3. Thin paper. |
| 2. Paste. | |

Utensils.

- | | |
|---------------|--------------------|
| 1. Compasses. | \| 4. Conical former. |
| 2. Knife. | \| 5. Bowl for paste. |
| 3. Scissors. | \| 6. Brushes. |

Operations.

1. *Cutting out*.—First, mark out the No. 4 paper by describing with the compasses circles whose radii are equal to the length of the required cones.

Second, cut the circles out with the scissors and divide each into semi-circles.

Third, paste each semicircle and roll it separately on the former; press it firmly and lay it aside to dry. Then cut the cones to such a length that their bases shall be of the same diameter as the pot. Make in the same manner a similar cone of thin paper one inch longer and paste it on the first; cut the part of the cone formed of one thickness of paper into longitudinal slips one-fourth inch wide.

2. *Loading the pot.*—Put the bursting-charge of 150 to 300 grains of powder in the bottom of the pot and fill it with the decorations, placing the serpents and streamers on end, the primed ends down.

3. *Fixing the cone.*—Fill the cone with tow and paste the strips of the cone; place the cone on the pot and press the strips on the side of the pot. Paste a narrow band of paper around the rocket close to the base of the cone. The axes of the case, pot, and cone should all be in the same straight line.

To attach the stick.

Tie the stick to the rocket with a strong twine or annealed iron wire from 0''.04 to 0''.08 in diameter, at *two* places:

First, at the choke of the case and the second notch in the stick, crossing the ends of the twine or wire under the stick to prevent its moving to the right or left.

Second, in the notch in the end of the stick and near the pot, tie the twine in a hard knot and cut the ends close. If wire be used, twist the ends together with pliers and flatten the ends into the notch. The stick should be so attached that the center of gravity should be from 0''.8 to 2'' from the end of case, depending on the kind of decorations used. To secure this result reduce the size of the end of the stick if necessary.

COMPOSITIONS.

The term "composition" is used to designate all mechanical mixtures which by combustion produce the effects desired in pyrotechny. They are principally derived from gunpowder by an admixture of sulphur and niter in proper proportions. The ingredients should be pure and thoroughly incorporated.

For signal-rockets.

The composition for these rockets is composed of—

Niter	26.0 parts.
Sulphur	5.5 parts.
Charcoal	19.0 parts.

The first two ingredients are thoroughly mixed and incorporated by rubbing them in the hand and passing them three times through the sieve No. 2; the charcoal is added and mixed with the hands. If anti-mony or steel filings be used, they should be added after the charcoal. When beginning with a new composition or new materials it is necessary to try the composition by firing two or three rockets made of it and regulate the height of the solid. If the rockets do not ascend sufficiently high, increase the quantity of niter, and diminish it if the rockets burst or blow out the head.

When the rockets are well made they ascend rapidly to a great height and throw out their ornaments at the highest point of the curve after all the composition has burned out. For signal-rockets the charcoal should not be an impalpable powder.

English signal-rockets.

Composition (*fide* Owen):

	Lbs.	Ozs.
Saltpeter (niter)	4	0
Sublimed sulphur	1	0
Dogwood charcoal	1	8

The ingredients for the star compositions for the English signal-rockets are given by Colonel Owen as follows:

Sublimed sulphur	2 pounds.
Saltpeter (niter)	8 pounds.
Sulphide of antimony	2 pounds.
Vinegar	1 quart.
Spirits of wine	1 pint.
Isinglass	3¼ ounces.

With one pound of mealed powder for dredging.

Composition for stars (U. S.).

(The parts are by weight.)

White: 16 niter, 8 sulphur, 4 mealed powder.

Blue: 60 potassium chlorate, 24 sulphur, 7 copper sulphate.

Red: 32 strontium nitrate, 9 sulphur, 8 potassium chlorate, 2 lamp-black.

Green: 18 barium nitrate, 6 sulphur, 4 potassium chlorate, 1 lamp-black.

Purple: 24 potassium chlorate, 4 sulphur, 3 copper sulphate.

Yellow: 1 charcoal, 1 sulphur, 6 sodium nitrate.

Five-pointed: 7 sulphur, 10 mealed powder.

Laboratory paper.

The paper used for signal rockets and port-fires should be homogeneous, well sized, smooth, pliable, uniform in thickness, should have a good body without being too thick, and be free from folds or rents and traces of stalks. The different kinds of paper are designated by numbers. The following is the classification used by the United States Ordnance Department, at Frankford Arsenal, Pennsylvania:

Size and weight of paper.

Kind of paper.	Use.	Dimensions.	Weight.	Proof weights.
		<i>Inches.</i>	<i>Pounds.</i>	<i>Pounds.</i>
No. 1.....	For musket cartridges.....	18 x16½	.....	40
No. 2.....	For musket-cartridge wrapper.....	18 x20	36	101
No. 3.....	Cartridge-box wrappers	<div>16 x14 18 x16 20 x20 24 x20</div>	<div>21 27 37½ 45</div>	30
No. 4.....	Rockets and port-fires	19 x28	65	180
No. 5.....	Fixed ammunition.....	23½x24	60	225
No. 6	Common cartridges.....	19 x28	70	315
No. 7.....	Fireworks.....	18 x16½	20	85

The dimensions given in this table are those of the trimmed sheets when ready for use. The paper is packed in bundles of 500 sheets each, without folding.

INSPECTION.

The bundles should first be carefully examined to see that the paper fulfills the requirements which are given in the first paragraph. The number of sheets in a few of the bundles should be counted in

order to verify the quantity of paper. Then moisten a sheet to see that it presents a uniform hue, without spots or marblings. When taken out of the water and suspended a moment by the extremities of the sheet sides, its own weight should not cause it to tear. The rent of a torn sheet should appear fibrous, and the sheet when crumpled in the hand or pinched with the nails should not tear in the folds.

TESTS.*

Take five sheets from each ream, only one of which is allowed to have less than the required strength. If this condition be not fulfilled, the ream is rejected.

In testing the strength of paper the two ends are held by two vises of hard wood; each vise is composed of two rectangular jaws, which can be brought against each other and held firmly by means of screws, or by tenons on one jaw passing through the other and keyed firmly to it. A strip of paper four inches wide is cut from the sheet and inserted in the vises, so that the length between them shall be exactly twelve inches. The jaws are closed tightly, and one vise is suspended from a fixed point by means of a cord or hook, and to the other is made fast the pan of a balance. The pan is loaded gradually, with care, until the paper gives way. The strips should not be taken from the edges of the sheets only, but from all parts, and from the length and breadth successively, for in these two directions the strength is very different.

A strip of paper four inches wide ought not to break under a weight of forty pounds in the direction of its least strength.

The foregoing are the tests for cartridge-box wrappers, and the other papers are tested in the same way, and should possess the same general characteristics.

SIEVES.†

Sieves are made of brass wire, hair, or silk, and may be square or round in shape.

Hair sieves for mixing compositions:

No. 1: 50 meshes in 1 inch, or 2,500 in a square inch, a single hair in one direction, two in the other.

No. 2: 25 meshes in 1 inch, or 625 in a square inch, two hairs side by side in each direction.

No. 3: 12.5 meshes in 1 inch, or 156 in one square inch, three hairs side by side in each direction.

No. 4: 180 meshes in a square inch, brass wire.

Brass sieves ought to be used only for dry materials.

A silk sieve of 120 meshes to the linear inch is used in preparing glass-dust for priming compositions.

HALE'S WAR ROCKET.

(Plate V, Fig. 1.)

This system depends upon rotation about the longitudinal axis to secure steadiness and accuracy of flight. The rotation was originally produced by the escape of gas through five small vents. These vents were situ-

* As given by Colonel Whittemore and Captain Heath, Ordnance Department, U. S. A., in Ordnance Memoranda No. 21.

† Ordnance Memoranda No. 21, by Lieut. Col. James M. Whittemore and Capt. Frank Heath, Ordnance Department, U. S. A.

ated obliquely to the long axis and surrounding the large central vent, “so that the resultant of the tangential forces acted around the posterior extremity of the axis of rotation.” In 1855 the number of small vents in the base was reduced to three, and they were placed at the base of the head of the rocket, as shown in Fig. 1, Pl. IV. A late modification of the Hale rocket consisted in screwing a cast-iron base into the rear end of the case. This base was pierced with three vents.

Description.*

The rocket consists of four pieces. A head, conoidal in shape, of cast iron, hollow for bursting charge, having a cylindrical hole in the base about $\frac{1}{8}$ inch diameter, with screw-thread for fuse; there is also a small hole in front, used for filling shell with combustible material, closed by a screw, but into which can, if desirable, be fitted a nipple and cap for ignition by percussion; the head is turned down at the rear about $\frac{1}{8}$ inch so as to enter the body of the case about $\frac{1}{8}$ inch, and to which it is screwed by 6 pins or screws. A cylindrical body of sheet-iron about $\frac{1}{8}$ inch thick, with edges lapped, riveted, and brazed at the longitudinal joints. A thick iron disk, or annular ring, fitted in and fixed by screws or pins closes the base. A tail-piece of cast iron, containing the vents and shields, or walls, is screwed into the disk which closes the base.

The vents themselves are conical, the apex of the cone being towards the rear; the gas escaping through the vents and pressing against the curved shields, each placed in the same relative position to one of the vents, keeps the rocket point foremost in its flight, and gives the rotary motion on the turbine principle. The composition, which is separated from contact with the iron by paste-board to prevent oxidation, consists of saltpeter, sulphur, and charcoal, in the proportions of 70, 16, and 23, and is introduced into the case in successive pellets and pressed by hydraulic power; it is afterwards bored out in a cone for about two-thirds of its length.

The general construction of the 12- and 24-pounders is the same, differing only in general dimensions and the number of vents and curved shields, or walls, the 12-pounder having 3 and the 24-pounder 5.

The war rockets are fired from a trough mounted on a stand, either singly or in groups of seven, by means of an ordinary friction tube and lanyard.

The Hale rockets for the English service had cases made from “atlas metal,” riveted and brazed. The rockets were corrugated, which gave the cases a mechanical hold upon the composition, and prevented separation from the case due to rotation when fired. The head was plugged with oak, and the inside of the case treated to two coats of paint. Four kinds of these rockets were adopted for the English service, but only two were issued latterly. These were as given in the subjoined table:

Kind.	Total weight.		Diameter of vents.	Composition.		
				Niter.	Sulphur.	Charcoal.
	Pounds.	Ounces.	Inch.			
9-pounders	8	6	0.4	68.75	12.25	18.75
24-pounders	25	12	0.62	70.00	16.00	23.00

* Ordnance Memoranda No. 21, by Lieut. Col. Jas. M. Whittemore and Capt. Frank Heath, Ordnance Department, U. S. A.

THE HALE LIFE-SAVING ROCKET.*

Plate V, Fig. 2.

This differs from the above (American Hale) only in that the head, instead of being cast iron, is of wood, and in the addition of a piece of chain about 3 feet long, which is connected to the center of the bottom of the tail-piece by a double swivel; to the chain is attached the life-line.

This rocket is fired from an ordinary V-shaped trough, which may be given any desired elevation. As the chain is hardly long enough to prevent the burning off of the rope by the gas escaping from the vents, it is safest to wet about two fathoms of rope next to the chain.

MACDONALD'S IMPROVED HALE'S WAR ROCKET.

Plate V, Fig. 3.

The case of the improved rocket is of steel of great strength, at the end of which is soldered a collar, *b*, to the center of which is screwed a wrought-iron tube, *c*. This tube unites the head to the body of the rocket, and allows the gas to escape through the upper vents. The head has a cavity, *d*, communicating with the exterior by five openings directed towards the rear. These vents or openings, as in the Hale rocket, have semi-cylindrical flanges; the gas escaping acts against the concave face of the flanges, and imparts a motion of rotation to the rocket. The lower end of the case is closed by a disk, also pierced with five vents corresponding to those in the head, and furnished with similar flanges. This construction applies the motion of rotation to the head as well as the rear part of the rocket, and remedies the considerable deviation of the Hale rocket, due to the motion of rotation being applied to the base only. As its center of gravity is considerably in front, the head describes large and irregular spirals.

The rocket composition consists of 70 parts of niter, 16 parts of sulphur, and 23 parts of charcoal. It is pressed into the tube *a* with a pressure of 90 tons. As it is bored throughout its whole length by the channel *c*, the surface of inflammation is much more considerable than in the Hale rocket, and its velocity much greater. The head has at its front part, in front of the cavity *d*, a shell with a bursting charge, which is ignited by means of a fuse, either percussion or time. The rocket thus perfected has given results very superior to those obtained by war rockets of other systems.

Five 12-pounder rockets thrown under an angle of $8^{\circ} 15'$ had a mean range of 1870 meters, with a lateral deviation of 2.74 meters only, while Hale rockets of the same caliber, under the same angle of elevation, had a range of only 1200 meters, with a lateral deviation of 34 meters.

CUNNINGHAM'S ROCKET.

(Plate VII.)

This is the latest device for carrying lines by means of a rocket that has come to notice. No dimensions, weights, or results of experiments have been made known. Below is given a copy of the printed specifications, which contain all the information at present available.

* Ordnance Memoranda No. 21, by Lieut. Col. James M. Whittemore and Capt. Frank Heath, Ordnance Department, U. S. A.

Fig. 1 Hale's War Rocket.



Fig. 2 Hale's Life-Saving Rocket.



Fig. 3 Macdonald's Improved Hute War Rocket.



LIFE-SAVING APPARATUS.

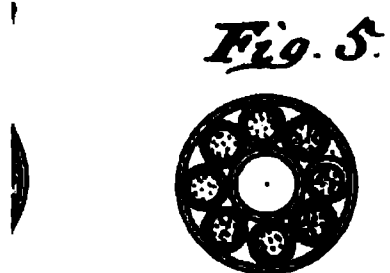
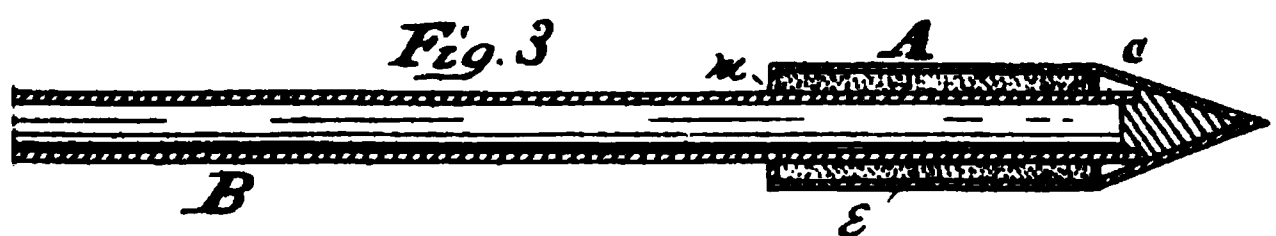
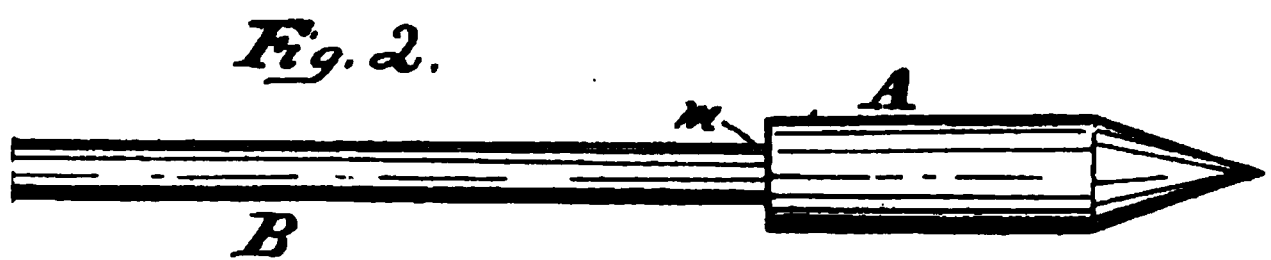
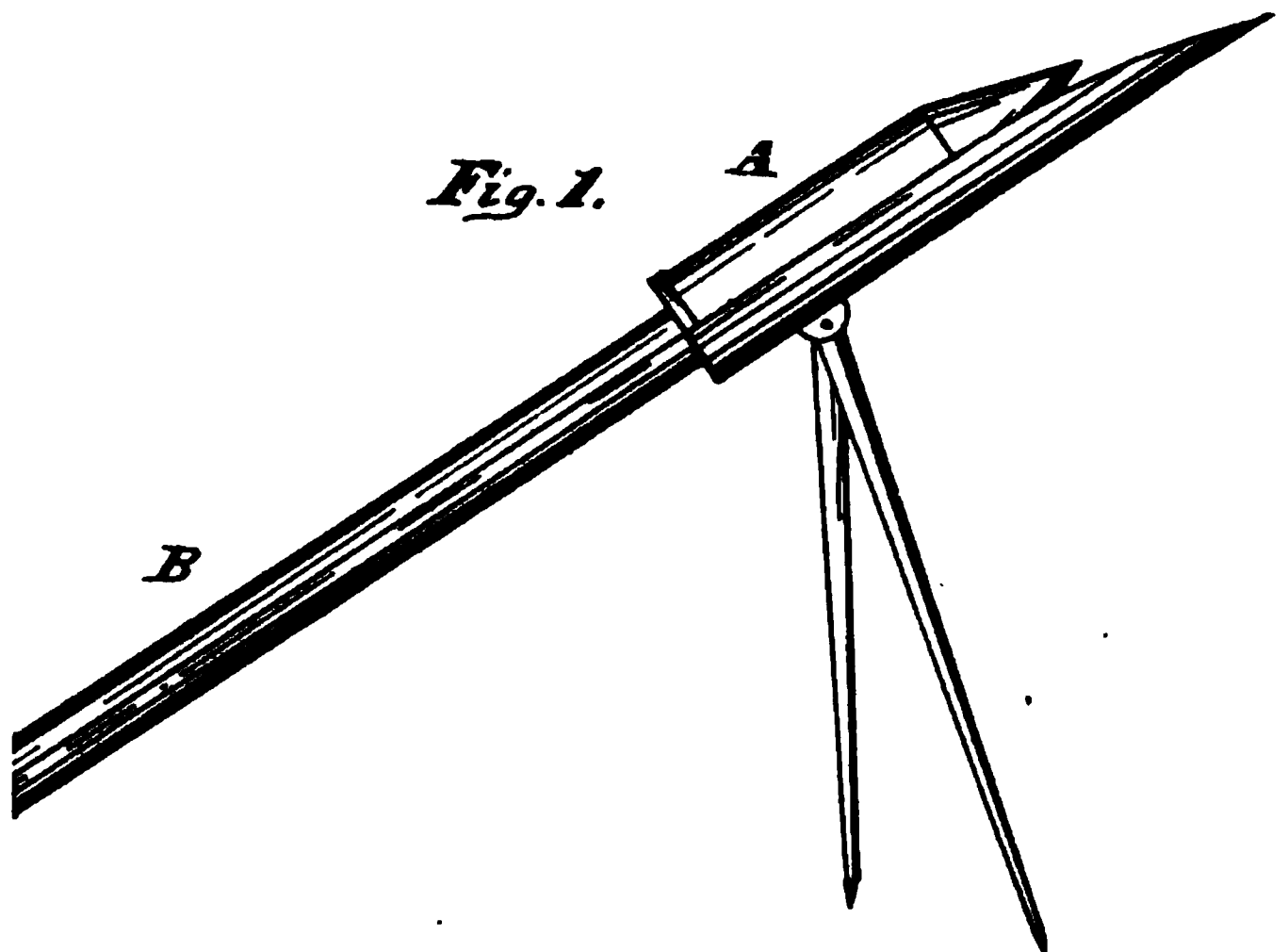
 HALE'S WAR ROCKET,
 HALE'S LIFE-SAVING ROCKET,

 Macdonald's Improved Hute War Rocket.

 1861.

37.

Patented Oct. 24, 1882.



AVING APPARATUS.

M'S LINE-CARRYING ROCKET.
1882.

PATRICK CUNNINGHAM, OF NEW BEDFORD, MASSACHUSETTS.

ROCKET.

Specification forming part of Letters Patent No. 266437, dated October 24, 1882. Application filed February 6, 1882. (No model.)

To all whom it may concern :

Be it known that I, Patrick Cunningham, a citizen of the United States, residing at New Bedford, county of Bristol, and State of Massachusetts, have invented a new and useful improvement in rockets for throwing lines, designed to be used in the Life-Saving Service, of which the following is a specification :

My invention relates to improvements in that class of rockets which are designed to carry a line from the shore to a ship in distress, and has for its object to provide an apparatus by which a line can be carried to a great distance with accuracy.

To this end my invention consists in constructing a rocket whose tail is a tube, in which tube is coiled the line to be carried, and around the front end of which tube is arranged the receptacle for holding the rocket composition.

In the accompanying drawings, in which like letters indicate like parts, Figure 1 is a side elevation of my improved rocket resting in a suitable rocket-stand, and showing the ground end of the line protruding from the rear end of the tube in which the line is coiled. Fig. 2 is a side view of my improved rocket as it appears when not resting in the rocket-stand. Fig. 3 is a longitudinal sectional view of my improved rocket. Fig. 4 is a view of a cross-section of the head of the same, showing the rocket composition arranged around the tube in a continuous mass. Fig. 5 shows a different method of arranging the rocket composition, *i. e.*, in separate compartments instead of one continuous mass.

In Fig. 2 A is the head of the rocket, which head contains the rocket composition, which is provided with a suitable fuse at *m*. B is the tube in which the line is coiled, and which also forms the tail of the rocket. *l* is the ground end of the line.

Fig. 3 clearly shows the construction of the rocket. The line occupies the whole of the tube B from *c* to *d*, being coiled therein. A is the receptacle for the rocket composition, which composition is represented by E.

In the cross-sectional view, Fig. 4, *h* represents a section of the line coiled in the tube B, and E is the rocket composition around said tube.

By arranging the rocket composition around a center in the manner shown the rocket maintains a direct course, and by coiling the line in the tube, so that the rocket carries the line with it in its flight and pays it out as it advances, the rocket is enabled to make the same direct and unimpeded flight that a projectile does when fired from a gun.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The rocket constructed as herein shown and described, with the head A, a tube, B, secured within said head and extending to the rear to form the tail, and the intervening space between said tube and the inner wall of the head filled with rocket composition.

PATRICK CUNNINGHAM.

Witnesses :

F. A. MILLIKEN.

GEO. F. TUCKER.

2. BOXER LIFE-SAVING ROCKET (ENGLISH).

The committee fired eighteen of these rockets to see if they had deteriorated by storage. None of them exploded nor were any signs of deterioration made manifest. They were all fired out to sea without a line. The flight was often very erratic, due doubtless to the absence of a line. The action of the composition was uniform and good. There is still a supply of these rockets on hand. The Boxer system requires so many accessories and individual articles for its use that the committee believes its introduction would not be desirable. This apparatus is much more difficult to serve than the German apparatus and is not nearly so convenient to transport or assemble for use.

Respectfully submitted.

D. A. LYLE,
Captain of Ordnance,
 JOHN C. PATTERSON,
Keeper Station 1, Fourth District, L. S. S.,
Committee.

To the PRESIDENT OF THE BOARD ON LIFE-SAVING APPLIANCES.
 SANDY HOOK, N. J., October 27, 1882.

3. SHEET-IRON FAKING-BOXES.

These faking-boxes are designed to obviate the splitting of the bottom and ends to which wooden boxes are subject from the whipping of the line as it runs out in firing.

These experimental boxes are described on page 409 *et seq.* of the annual report of the general superintendent of the Life-Saving Service for the year 1881.

The large size "A" weighs 3.2 pounds less than a wooden box of the same size.

The small one, size "B," weighs 4.64 pounds less than a wooden box of corresponding size.

The cost of the sheet-iron boxes is about the same as that of the wooden ones in service.

It was feared that the sheet-iron boxes were too liable to be bent out of shape in handling and transportation on account of the thin iron of which they were constructed; but the experimental boxes have preserved their shape well during the trials.

Lines have been fired from sheet-iron faking-box "A" twenty-four times, and from sheet-iron box "B" eighteen times during the trials made on different dates at this place.

The boxes are still as good as ever and show no signs of injury or deterioration.

Respectfully submitted.

D. A. LYLE,
Captain of Ordnance,
 JOHN C. PATTERSON,
Keeper Station 1, Fourth District, L. S. S.,
Committee.

To the PRESIDENT OF THE BOARD ON LIFE-SAVING APPLIANCES.
 SANDY HOOK, N. J., November 6, 1882.

4. CRANSTON'S SAFETY-LIGHTING ATTACHMENT FOR LANTERNS.

(Plate VIII.)

A sample lantern with this attachment was sent to Capt. J. H. Mer-ryman, U. S. R. M., inspector of life-saving stations, by the inventor. The lantern was sent to Sandy Hook, N. J., for trial. The committee examined the attachment, made some preliminary trials, and then placed it in the hands of the crew of station No. 1, fourth district, Life-Saving Service, for further trial.

Mr. Cranston sent the following directions with the lantern, viz:

"When removing the lamp for the purpose of filling, always return it with the slots in the wick-tube on the same side of the lighter in the globe. This [the one sent] being an unusually large globe, I send you a bunch of 'star matches.' If the friction-bar becomes clogged with phosphorus from the matches, remove it and dip it in hot water or lay it on a piece of hot iron."

When received the matches were pretty well saturated with oil.

The first trials made developed the fact that before the wick could ignite the matches would burn up so far that the wick could not be reached.

The matches sent and used were 2".5 in length. As Mr. Cranston has stated, the globe was of large size, too large to be lighted after the friction matches had partially burned.

The wick was ignited about once in three times in the open air with a good deal of wind.

The failures were mostly due to the large size of the globe. With a smaller globe and the same length of match no difficulty would be experienced. The match should be long enough to reach the wick easily when the operator's fingers are numb with cold, as in this condition he requires more length of match in order to hold it.

A match-safe to hold the friction matches may be attached to the wires of the lantern.

The results of the trials made by the patrolmen of life-saving station No. 1, fourth district, are detailed in the report of Capt. John C. Patterson, keeper of that station. This report is appended and marked "A."

The committee concur in the opinion of Captain Patterson that, with a smaller globe than the one tested, in order to overcome the objection of the friction match burning too short before the wick is ignited, this attachment of Mr. Cranston will be a valuable auxiliary to the lanterns used by the Life-Saving Service.

The globes in service can be gradually replaced by those bearing this attachment with but little expense.

The committee would respectfully invite the attention of the Board to the services of the crew of life-saving station No. 1, district No. 4, who cheerfully and intelligently assisted throughout the numerous experiments conducted at Sandy Hook, which entailed a great deal of extra labor. The members performed these services without extra compensation, in addition to their regular duties of patrol, which were onerous and exhaustive, owing to the inclemency of the weather.

A descriptive report of this attachment, made by Capt. D. A. Lyle, Ordnance Department, with drawings, is appended, and forms part of this report. It is marked B.

Respectfully submitted.

D. A. LYLE,
Captain of Ordnance, U. S. A.,
JOHN C. PATTERSON,
Keeper Station No. 1, Fourth District, L. S. S.,
Committee.

3 BOWLING GREEN, NEW YORK, November 15, 1882.

A.

SANDY HOOK, *November 9, 1882.*

I have the honor to report as follows on the use of the Cranston safety-lighting attachment for lanterns for the Life-Saving Service at life-saving station No. 1, fourth district.

A lantern with the above attachment was handed me on the 28th of October, 1882, by Capt. D. A. Lyle, for a practical test. On the night of October 29 I had each patrol carry said lantern with instructions to light it before going on patrol, and to extinguish it while following the beach, and then to try lighting it through the "gate" in the globe of the lantern, striking the match on the "igniter," having instructed them carefully how to use the same.

The weather was quite mild on the night of October 30, not allowing a full test of the attachment, as it is only on very stormy nights and when heavy winds are blowing that patrolmen's lanterns are liable to be extinguished.

I caused the lantern to be used the same on the night of October 31, the weather being still quite moderate.

The different patrols, upon use of the attachment, found that the lantern could be lighted easily; using the longest match we had, it was found too short. If the globe was smaller, as the inventor suggests, the lantern could be lighted with more certainty on stormy nights when the snow and sleet is driving against the lantern, and when the patrolman's fingers are cold and numb. So, if longer matches could be provided, it would be better. On the night of November 1 I had the patrol carry the lantern with about the same results, the weather still moderate.

On the night of November 2, the wind blowing quite fresh, I took the lantern myself, and, starting from station with lantern lighted, I put it out and relighted it twice while on the beach without trouble, only in the shortness of matches.

I caused the lantern (with attachment) to be used on the nights of November 3, 4, 5, and 6, with about the same results. So far as I am able to judge (not having an opportunity to fully test it in a winter's storm), I am fully of the opinion that an extinguished lantern could be relighted on the beach with this attachment and that it would be of service to the night patrol of the United States Life-Saving Service.

JOHN C. PATTERSON,
Keeper Station No. 1, L. S. S.

Capt. D. A. LYLE,
Chairman Committee.

B.

REPORT ON CRANSTON'S SAFETY-LIGHTING ATTACHMENT FOR LANTERNS FOR THE LIFE-SAVING SERVICE.

By Capt. D. A. LYLE, *Ordnance Department.*

Plate VIII.

This attachment is the invention of Mr. J. F. Cranston, of the National Armory, Springfield, Mass., who has recently patented it.

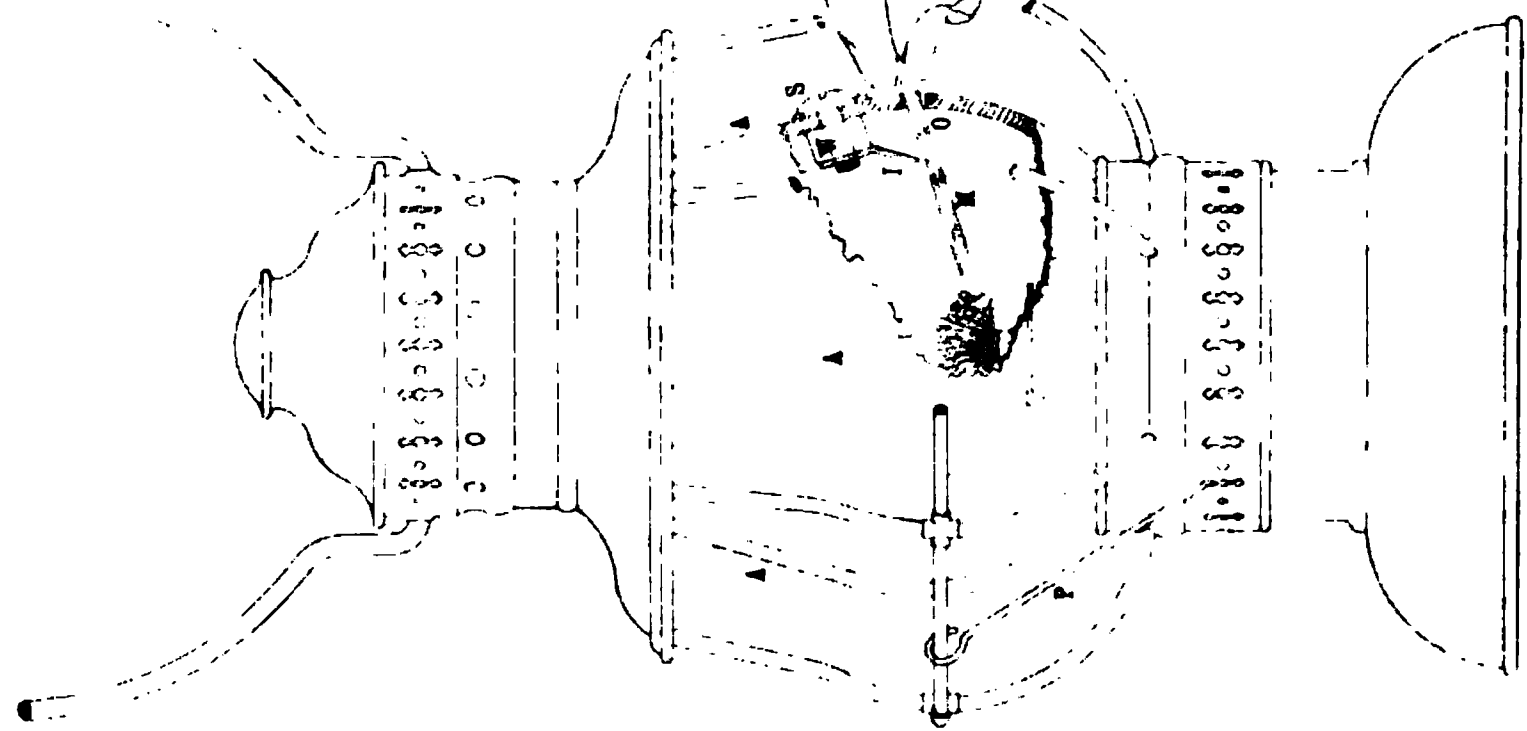


Fig. 1.

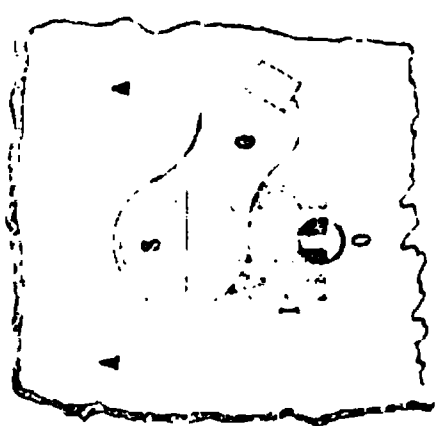


Fig. 2.



Fig. 3.

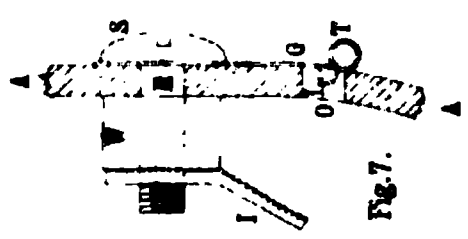


Fig. 7.



Fig. 4.

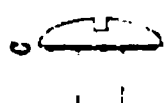


Fig. 5.



Fig. 6.

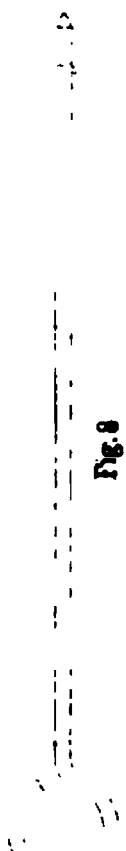


Fig. 8.

LIFE-SAVING APPARATUS.
CRAWSTON'S
 SAFETY-LIGHTING ATTACHMENT
 FOR
 LANTERNS.
 Life-Saving Service, Railways, &c.

NOMENCLATURE.

(Plate VIII, Figs. 1-7.)

This device consists of four pieces, viz :

1. The gate.
2. The igniter.
3. The assembling screw.
4. The rubber washer.

The gate, igniter, and assembling screw are made of brass.

DESCRIPTION.

1. *The gate* (Fig. 6).—This is punched from sheet-brass and has a hole at its larger end that fits a shoulder on the under side of the head of the assembling screw. It rotates upon this shoulder as an arbor. The lower end has a projection on its under side which enters the lower hole in the glass globe and prevents lateral motion when the gate is closed. The thumb-piece is formed by curving upward the lower end of the gate.

2. *The igniter* (Figs. 1, 2, 3, and 7).—This is punched from sheet-brass. The circular hole near the upper end has a female-screw thread cut upon its interior surface which engages the male thread of the assembling screw. The front side of the igniter is a coarse double-cut file surface, upon which the friction-matches are ignited. To prevent the filling up of the cuts with brimstone three rectangular notches are made at the lower end. After being prepared as shown in Fig. 3 the igniter is bent as shown in Fig. 7.

3. *The assembling screw* (Fig. 5).—This screw is made from brass wire. The head is rounded and slotted for a screwdriver. The under side of the head has a cylindrical shoulder upon which swings the gate. The body has a male-screw thread to engage a corresponding female thread in the igniter.

4. *The rubber washer* (Fig. 4).—This is cylindrical and has an axial hole through which the assembling screw passes.

ASSEMBLING.

The glass globes are prepared by drilling two holes through the side at the proper distance apart. The centers of these holes are approximately in a vertical plane.

Having the components prepared, pass the assembling screw through the hole in the gate, and then through the upper hole in the glass globe. Slip the rubber washer on from the inside, and then, holding the igniter in position, turn the screw in with the fingers and tighten with a screwdriver. The file-cut surface coming in contact with the washer will prevent lateral motion of the igniter, and at the same time the washer will yield enough during expansion and contraction to prevent the breaking of the glass globe.

ACTION.

To light or relight a lantern fitted with this attachment press the thumb-piece towards the right, carrying the gate clear of the lower hole in the glass globe. Insert the friction match, press it against the igniter, and with a brisk downward motion of the composition end the match will be ignited by friction against the file-cut surface. Pause a moment until the match is well lighted, and then extend it until it reaches the wick.

After igniting the wick the match may be dropped inside the lantern, thus avoiding any danger from fire that might occur from throwing away an unextinguished match after using; or, by withdrawing it slowly, the match will be extinguished in passing through the hole in the glass globe.

USES.

Lanterns fitted with this attachment are intended for use in stormy or wet weather. As long as the matches are kept dry there is no difficulty in lighting the lantern, no matter how windy it may be.

LIFE-SAVING SERVICE.

For this service the device is intended to be attached to the patrol lanterns, and, if required, to all lanterns at the stations. Patrolmen on tempestuous nights often have their lanterns extinguished by the wind, whereas the application of this simple arrangement would enable them to relight their lanterns without delay.

MILITARY SERVICE.

Stable lanterns, battery lanterns, company lanterns, and those of watchmen in and around public buildings, such as stables, shops, arsenals, commissary and quartermaster store-houses, can be fitted with it so as to avoid danger from fire, not to mention the ease of lighting outdoors in windy weather.

RAILWAY SERVICE.

Here it has already shown itself to be a valuable auxiliary to the safety of trains. In case of delay or accident, where a brakeman jumps from his train to go to the front or rear to signal an advancing train, it frequently happens that his light is extinguished by the act of jumping down. If very windy, great difficulty is experienced in relighting it. This delay may be sufficient to cause a collision that would otherwise have been prevented by the employment of such a device.

APPENDAGES.

The wick-picker is a pointed steel wire used for raising and adjusting the wick of the lantern. It is inserted through the hole in the globe. A match-box or safe can be attached to the outside of the lantern if desired.

COST.

The cost of the attachment is twenty (20) cents for each lantern. When lanterns fitted with this device are ordered, the ordinary price of the lantern must be added to the above.

EXPLANATION OF PLATE.

(Plate viii.)

Fig. 1.—Elevation and partial section of lantern, showing method of using Cranston's "Safety-lighting attachment."

- I.—Igniter (sheet-brass).
- W.—Rubber washer.
- S.—Assembling screw (brass).
- P.—Wick-picker.
- M.—Lighted friction-match.
- O.—Hole in glass globe.

Fig. 2.—Front elevation of Cranston's "Safety-lighting attachment for lanterns":

- A A.—Segment of glass globe.
- S.—Assembling screw (brass).
- G.—Gate (brass).
- I.—Igniter.
- O.—Hole in glass globe.

Fig. 3.—Igniter before bending:

- H.—Hole for assembling screw.

Fig. 4.—Rubber washer:

- A.—End elevation.
- B.—Side elevation.
- C.—Hole for assembling screws.

Fig. 5.—Assembling screw:

- A.—Side elevation.
- B.—End elevation.
- C.—Shoulder for gate.

Fig. 6.—Gate (brass).

- H.—Hole for shoulder of assembling screw.
- L.—Projection to hold gate in place when closed.
- T.—Thumb-piece of gate.

Fig. 7.—Safety lighting attachment:

- A A.—Section of glass globe.
- H.—Hole for assembling screw.
- O.—Hole for inserting friction match.
- S.—Assembling screw.
- W.—Rubber washer.
- I.—Igniter.
- G.—Gate.
- T.—Thumb-piece of gate.
- L.—Projection on under side of gate to hold it in position when closed.

Fig. 8.—Wick-picker (steel wire).

5.—JACKSON'S "IMPROVED SELF-IGNITING FUSEE SIGNALS."

(Plate IX, Figs. 3, 4, 5, 6.)

This signal was patented by Mr. Samuel Jackson, of Philadelphia, Pa., September 6, 1881.

It is intended for use at life-saving stations, to be carried by patrolmen to warn vessels approaching too near shore, or when stranded to notify them that they have been observed, and that assistance is at hand.

DESCRIPTION.

This contrivance is composed of three parts, viz:

1. The case.
2. The wooden handle.
3. The cap.

1. *The Case.*

(Plate IX, Fig. 4.)

The case contains the burning composition, and is cylindrical in form. It is made of laboratory paper, and coated externally with black paint or lacker.

It is filled with a composition, the proportion of whose ingredients has not been given by the inventor. The front end of the case after filling with composition is primed with a detonating compound (whose principal ingredient is potassium chlorate) that is ignited by the sulphuric acid contained in the glass bulb of the cap. A disk of thin cloth is pasted over the detonating composition and varnished, to protect it from moisture.

Dimensions.		Inches.
Length of case		11.75
Interior diameter		1.0

2. The Wooden Handle.

This is made of some light wood, such as poplar or pine. The front end has a cylindrical tenon turned to fit the interior of the case. The rear end also has a similar tenon, against whose shoulder the end of the cap abuts.

This end is countersunk, in order to protect the glass bulb in the bottom of the cap from injury. The middle portion of the handle is suitably curved in meridian section to form a grip.

Dimensions.		Inches.
Total length		4.75
Length forward tenon		1.125
Length rear tenon		1.5
Length middle portion	2.125 to	2.25
Diameter each tenon		1.0
Depth of countersink		0.15

3. The Cap.

The cap is cylindrical, and is made of laboratory paper. The bottom of the cap is plugged with wood, on the inner end of which is fastened the small glass bulb which contains the acid. The glass bulb is glued to the plug, which is slightly countersunk to receive it.

The exterior is covered with black paint or lacker.

Dimensions.		Inches.
Length of cap		3.0
Diameter, exterior		1.15
Interior		1.0
Wooden plug, length		0.75
Diameter		1.0
Glass bulb for sulphuric acid, length		0.5
Diameter		0.625
Total length of signal ready for packing		17.0

PACKING.

These signals are packed in a tin cylinder with a removable cap. The ends of the cylinder are convex. On opposite sides and near the upper end of the cylinder are soldered wire studs, which slide in two L-shaped notches in the cap in opening and closing.

Two wire loops near the ends of the cylinder serve as points of attachment for a strap, by means of which the case may be slung over the shoulder in transportation.

The signals are carried with the handles up. A small bunch of cotton waste is put in the cylinder before packing to protect the detonating composition.

The exterior of this cylinder is japanned, to protect it from rust.

Dimensions.		Inches.
Packing cylinder, total length		19.25
Diameter		3.75
Capacity		Six signals.

NOTE.—Only one case of (6) signals was furnished for trial.

METHOD OF USING.

Take a signal from the cylinder, remove the cap from the rear end of the handle, and slip it gently over the front end of the case, until the glass bulb comes in contact with the end of the case. Then hold the signal vertically, and strike the end downwards upon any hard substance.

The shock will break the glass bulb and cut through the thin cloth cap over the end of the case, bringing the acid in contact with the detonating compound.

A slight explosion will follow, blowing off the cap and igniting the composition.

"The signal should be held in this position for a moment to insure perfect ignition." Care must be taken to strike the end squarely, for should the blow be received upon one edge, the shock will be apt to rupture the thin case transversely, and cause at least a partial loss of the signal.

CLAIMS OF THE INVENTOR.

1. These signals are used for producing light under any circumstances in rain, wind, or storm.

2. The peculiar "advantage" is the instant ignition by means so simple as to protect it from the contingencies of failure which so often occurs in devices of a similar nature.

3. The ignition can be produced in a boat, no matter what the condition of the sea or elements, as readily as on land.

4. The signals are "warranted" to burn in any weather.

Remark.—The inventor states that the size of the signals, time of burning, and "volume of light required" will govern the price. The cost is not given.

EXPERIMENTS.

The Jackson signals sent for trial were numbered from 1 to 6, inclusive. The first three were burned and tried in daylight; the last three at night.

No. 1. This signal broke across about the middle when struck, but the glass bulb containing the acid was not broken. The case was evidently struck upon the edge instead of squarely on the end. The case was ruptured three-fourths of the way around. A piece of quick-match was inserted in the ruptured case and ignited.

The signal burned in both directions from the point of rupture. The signal exhibits a red light in burning, with a yellowish white color in the middle portion of the flame. It showed a yellow flame for a few seconds when the end of the case was reached.

Time of burning, 4 minutes.

No. 2. Ignited according to directions by breaking the glass bulb. The cap was blown off by the explosion.

Time of burning, 9 minutes.

No. 3. Ignited as before, showing a bright red light. It took four light blows upon the end to ignite it.

Time of burning, 9 minutes.

No. 4. Ignited at first blow upon the end, showed a bright red light. Action good.

Time of burning, 8 minutes 45 seconds.

No. 5. Ignited simultaneously with No. 4; red light. Action good.

Time of burning, 9 minutes 7 seconds.

No. 6. This signal ignited promptly. Action good. The light, as viewed 40 yards away, appeared to be of greater intensity than that of the small Coston beach light which was burning at the same time.

Time of burning, 8 minutes 23 seconds.

REMARKS.

The case of this signal is altogether too thin and weak. Too much care has to be taken, as now made, to prevent transverse rupture. A good deal of care must also be observed to prevent the loss of the cap, or the breaking of the glass bulb containing the acid.

Respectfully submitted.

D. A. LYLE,
Captain of Ordnance,
JOHN C. PATTERSON,
Keeper Station No. 1, Fourth Dist., L. S. S.,
Committee.

SANDY HOOK,
October 28, 1882.

6.—COSTON'S BEACH LIGHT AND HOLDER.

(Plate X.)

a.—COSTON'S BEACH LIGHT.

The Coston "Beach Light Signal" is cylindrical in form and consists of a case made of laboratory paper and a base plug. The former is filled with composition and is then attached to the base plug. The latter is of wood with an axial hole extending the greater part of its length from the base. A diametral hole is bored through the base plug intersecting the axial hole near its upper end. A strand of quick match is inserted in the diametral hole and lead along the side of the light to the top where it rests in a groove left in the composition for that purpose. The quick match is just beneath the outside wrapper of the light.

A percussion cap is placed in the axial hole of the base plug. The firing-pin of the holder, when driven forward into this hole, explodes the cap. The latter ignites the quick match along which the flame runs until it reaches the top of the case, where the composition is set on fire. An annular groove is cut near the lower end of the base plug. From this groove three short grooves extend longitudinally to the lower end of the base plug. These three grooves permit the ingress of three studs placed upon the interior surface of the tube which terminates the holder at its upper end. The three grooves are placed equidistant circumferentially to correspond with studs in the holder. A small stud (iron) is placed in the annular groove half way between two of the longitudinal grooves, which is intended to arrest the rotary motion of the beach light when inserting it in the holder after it has been revolved one-sixth of a turn. This stud brings up against one of the studs in the holder. It is too weak to be of much service.

Two samples of beach lights were furnished for trial; one large, the other small.

Dimensions.

	Large light.	Small light.
	Inches.	Inches.
Total length	18.5	16.5
Diameter:		
Upper end	1.5	1.25
Lower end	1.3	1.25
Base plug:		
Total length	1.75	1.5
Diameter, upper end	1.3	1.2
Diameter, lower end	1.3	1.25
Length covered by case	1.0	0.8
Distance of annular groove from lower end	0.5	0.5
Width of annular groove	0.25	0.3
Depth of annular groove	0.15	0.15
Depth of axial hole	1.3	1.4
Diameter of axial hole	0.2	0.3
Distance of diametral hole from lower end	1.1	1.0
Diameter of diametral hole	0.25	0.25
Number of longitudinal grooves connecting annular groove with lower end for studs on holder, 8.		
Width of longitudinal grooves	0.3	0.3
Depth of longitudinal grooves	0.15	0.15

Weight, &c.

	Pounds.
Weight, large beach light (<i>vide</i> Coston)	2,219
Weight, small beach light (<i>vide</i> Coston)	1,438
Theoretical time of burning:	
Large light	18 minutes.
Small light	15 minutes.

Cost.

	1881.
Coston beach light, large	\$34.75 per dozen.
Coston beach light, small	25.00 per dozen.
Coston station light, for patrolmen	8.00 per dozen.

COMPARISON.

The committee decided to burn these lights at the same time with the English wreck lights on hand in order to get an idea of their relative value. These wreck lights are larger and burn longer than the Coston light. The flame of the latter, though smaller, is more brilliant. The English lights are described by Lieutenant (now Captain) D. A. Lyle, Ordnance Department, U. S. A., in his report on foreign life-saving rockets and rocket apparatus.*

The English light requires more delicate handling than the Coston to prevent injury. Each box (contains 3 lights,) of English wreck lights contains the following printed notice in addition to the printed label of instructions as given in the above-mentioned report, viz:

Lights, Illuminating Wreck.—These lights are to be carefully taken out of the packing case by means of the straps of broad silk braid which are put round them for that purpose; they are on no account to be lifted out by the wire loop at the end.

It will be seen from this that great care is necessary in handling. The segments being soft-soldered are apt to pull apart unless the lights are carried horizontally by the loops. The Coston also, is too delicate for its intended use.

The case is weak and is liable to be broken across in manipulation.

* *Vide* p. 369, *et seq.*, Annual Report of the Operations of the Life-Saving Service, 1880.

EXPERIMENTS.

The small Coston beach light ignited readily when placed in the holder. In inserting it, the small stud to prevent turning too far was broken off. It was too frail. The flame displayed was white and brilliant.

The large Coston beach light was ignited and used to fire the three English lights which were suspended from their tripods. The Coston large light was held horizontally in the holder while lighting the English signals, and bent of its own weight about one-third of its length from the bottom; but with great care it was prevented from breaking off. The composition about the point of flexure was doubtless cracked, which probably increased the rate of combustion when that point was reached. This would account for the shorter time of burning the long light as compared with the small one.

No. 2 of the English lights parted at the second segment while being prepared for lighting. It was replaced and fired with the others.

The English signals burned longer and gave more light than the Coston, though not so brilliant in intensity.

Time of burning:

Coston beach light, large, 12 minutes 52 seconds.

Coston beach light, small, 14 minutes 52 seconds.

English wreck lights:

No. 1 burned 24 minutes 25 seconds.

No. 2 burned 24 minutes 29 seconds.

No. 3 burned 20 minutes 55 seconds.

b.—COSTON BEACH-LIGHT HOLDER.

(Plate X.)

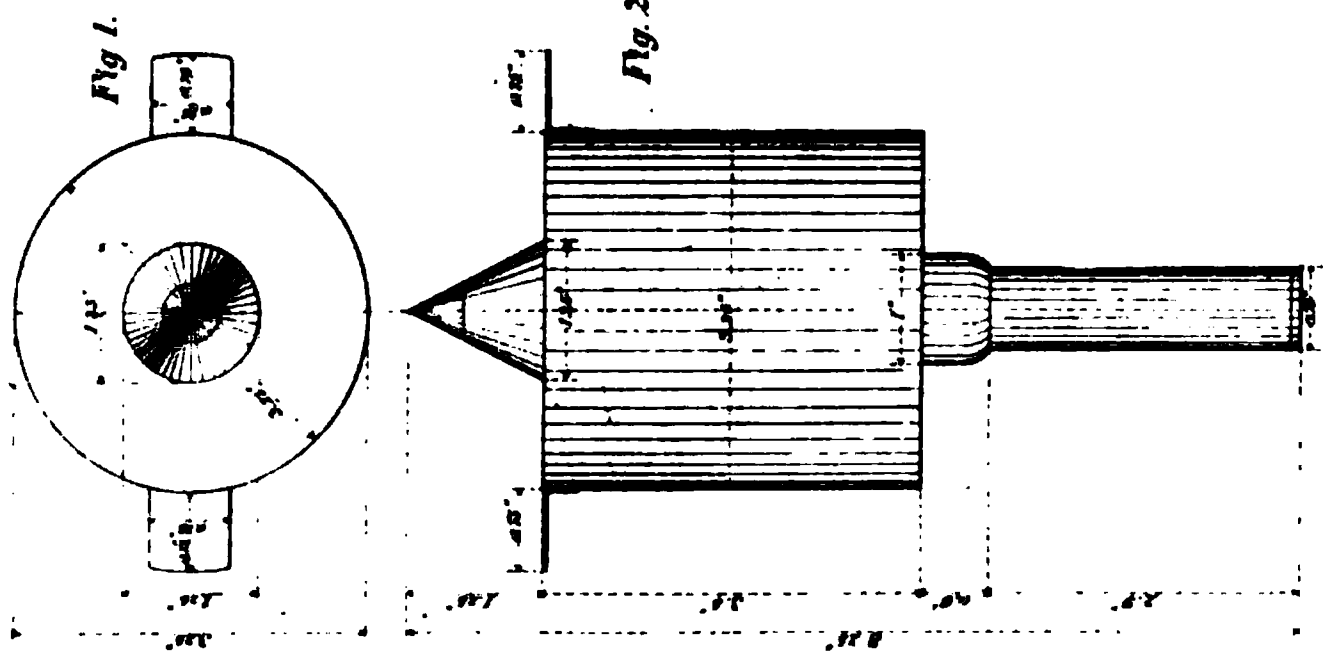
This holder consists of a hardwood staff, shod at its lower end with a sharp conical shoe of iron, and incased with a short brass tube at the upper end to receive the lower end of the beach light. The upper extremity of the brass tube is re-enforced exteriorly by a shorter tube of the same metal, which extends 0".2 beyond it. From the interior walls of the tubes project radially three iron studs which are placed 120° apart, to correspond with the three longitudinal grooves in the base plug of the beach light.

These studs engage the annular groove of the light when in position and hold it in place. Below and pressing against the studs is a small plate with a central hole to permit the passage of the firing-pin, when it is thrust forward to explode the percussion cap in the base plug of the beach light.

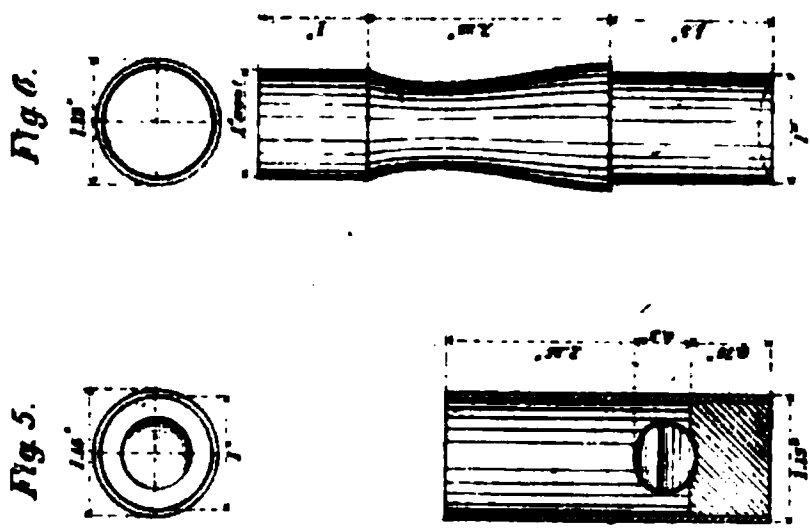
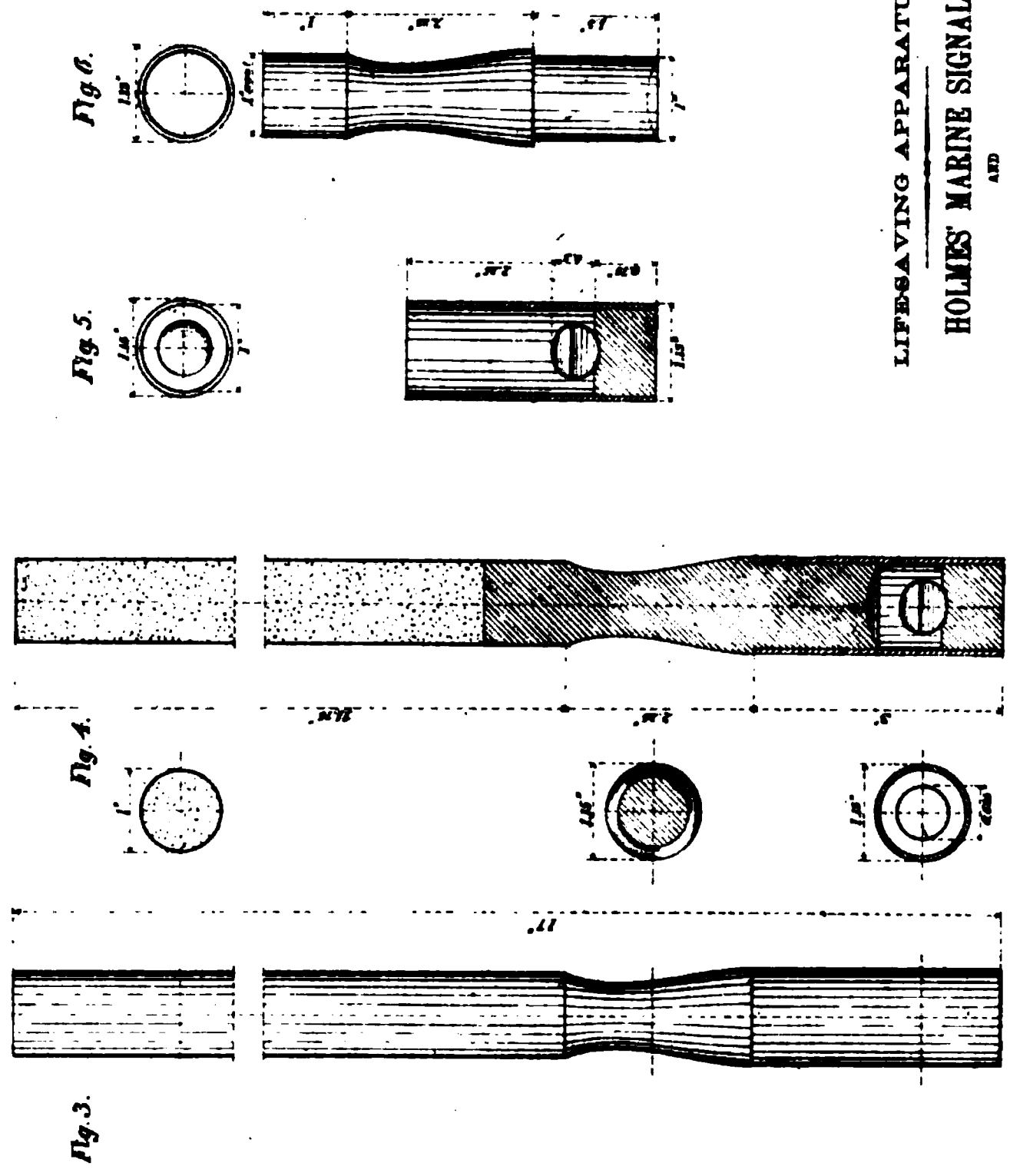
There is in the upper end of the staff a longitudinal hole whose axis is coincident with that of the staff. It receives the firing-pin and its enveloping spiral spring. The spring rests against the under side of the plate at one end and against the shoulder of the seat for the handle at the other end. Its function is to retract the firing-pin after it has been thrust forward by the hand. The firing-pin screws into the upper end of the seat. The handle screws into the side of the seat. A longitudinal slot in the staff allows the handle to move up and down when the beach light is to be ignited. The forward thrust of the firing-pin is 1".5.

The handle passes through the middle of a curved plate which covers the slot in the staff to keep out dust and water. This plate slides with the handle.

Holmes' Marine Signal.



Jackson's Self-Igniting Signal.



LIFESAVING APPARATUS.
HOLMES' MARINE SIGNAL
AND
JACKSON'S SELF-IGNITING SIGNAL.
1882.



Fig. 1.

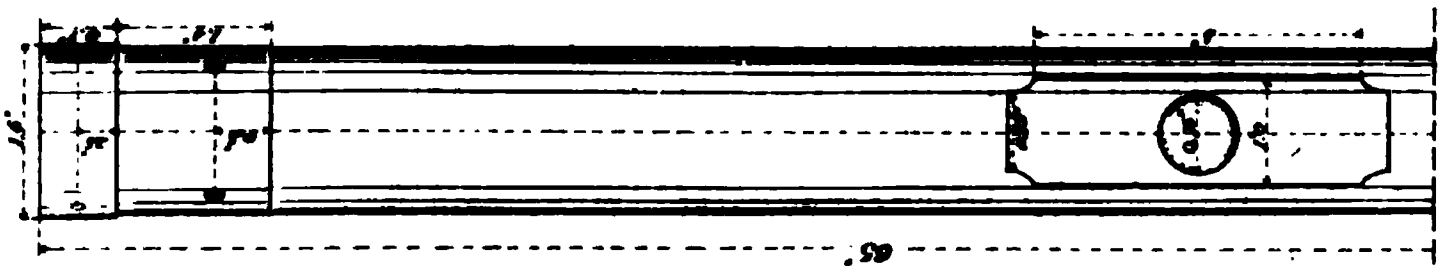


Fig. 2.

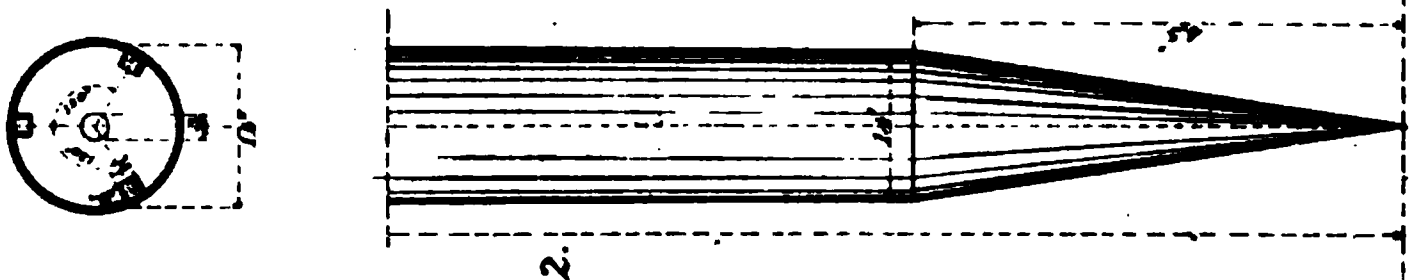


Fig. 3.

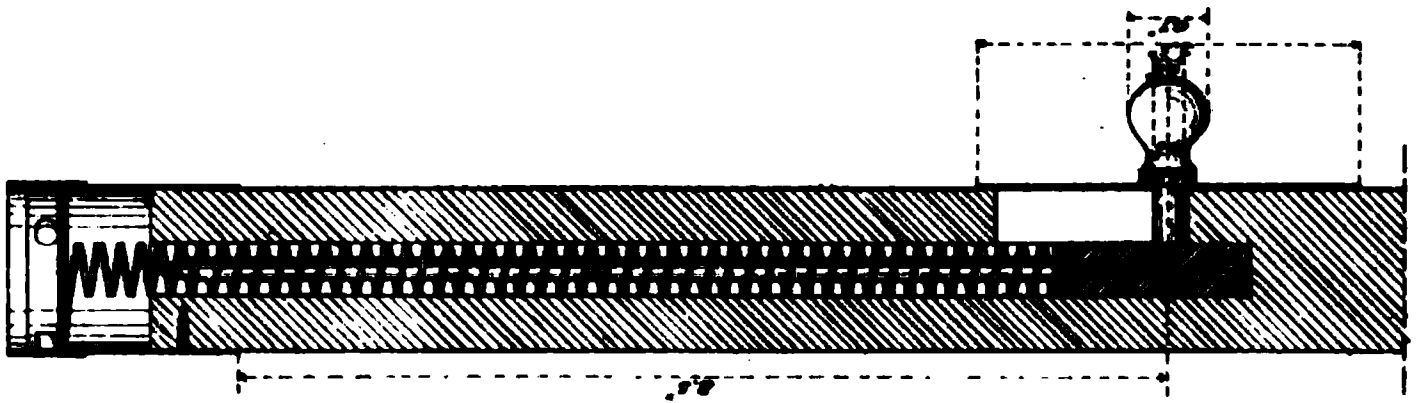


Fig. 4.

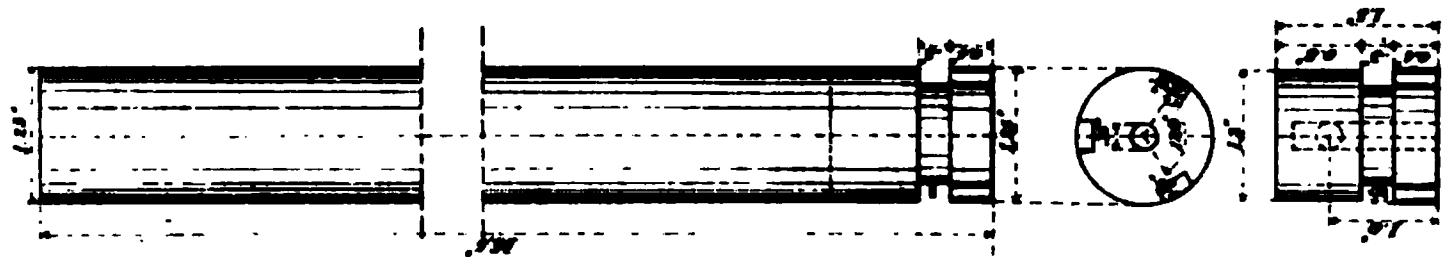


Fig. 5.

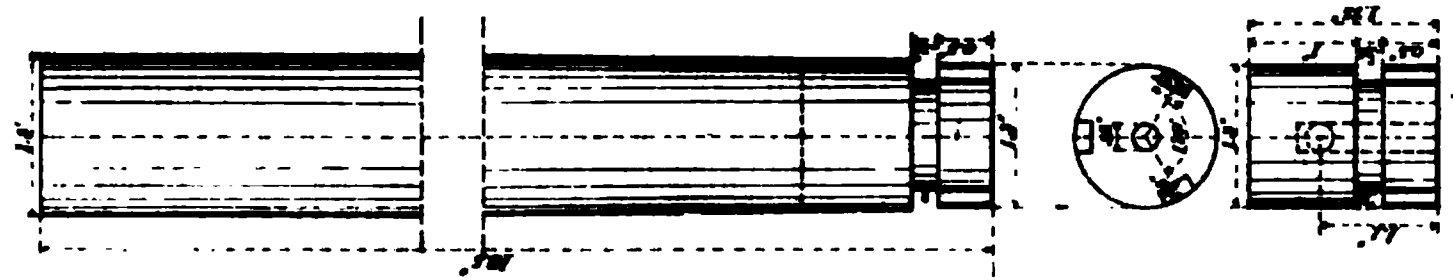
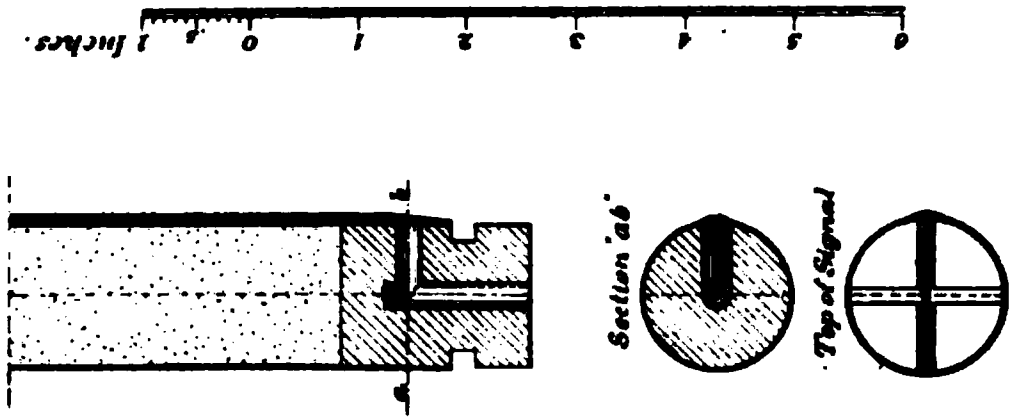


Fig. 6.



LIFESAVING APPARATUS.
COSTON'S NEW BEACH-LIGHT SIGNAL,
AND
SIGNAL HOLDER
1882.

0 1 2 3 4 5 6
Inches.

DIMENSIONS.

	Inches.
Total length.....	65.0
Diameter, upper end.....	1.5
Lower end.....	1.4
Length of conical shoe.....	4.5
Upper brass tube, length.....	0.7
Diameter, exterior.....	1.6
Diameter interior.....	1.5
Distance of studs from end.....	0.35
Studs, number.....	Three
Height.....	0.15
Diameter.....	0.2
Distance apart.....	120°
Inner brass tube, length exposed.....	1.4
Interior diameter.....	1.5
Assembling screws, number.....	Three
Distance from lower edge.....	0.5
Curved handle plate, length.....	3.5
Width.....	1.0
Width of ends.....	0.75
Handle, height above plate.....	1.0
Diameter of head.....	0.75
Diameter of neck.....	0.4
Diameter of shoulder.....	0.5
Diameter of stem.....	0.3
Diameter of screw.....	0.25
Longitudinal play of handle.....	1.5
Diameter of firing-pin hole in plate.....	0.25
Distance from lower edge of inner brass tube to handle.....	8.5
Distance from lower edge of inner tube to handle when thrust forward.....	7.0
Weight (<i>fide</i> Coston).....	3.19 lbs.
Cost, each.....	\$6.50

REMARKS.

The shock of thrusting the firing-pin forward is liable to knock the light out of the holder, unless the operator holds it with the disengaged hand. The holder appears to be well made, and possessed of sufficient strength for the purpose designed.

Mr. Coston's description and claims for his apparatus is appended hereto, marked "A," and forms part of this report. His drawing marked "B" is also appended.*

Respectfully submitted.

D. A. LYLE,
Captain of Ordnance U. S. A.

D. P. DOBBINS,
Supt. 9th L. S. Dist.

JOHN C. PATTERSON,
Keeper Station No. 1, Dist. No. 4, L. S. S.,
Committee.

SANDY HOOK, N. J., October 28, 1882.

7.—HOLMES' MARINE SIGNALS.

These signals are intended for use with life-buoys, for distress signals for vessels and for indicating the positions of life-boats at night. For life-buoys they must be attached by a few feet of cord, and are thrown over when any person falls overboard at night. The light given

* Mr. Coston's description and drawing are omitted; Plate X and description, which form a part of the committee's report, being more accurate and complete in detail, and affording a better idea of the various features of the device.

not only guides the person in the water to the buoy, but indicates the position of the buoy to the boat's crew pulling to the rescue. For distress signals, a vessel containing water must be furnished or placed on deck. They are said to be visible from a vessel's deck 5 nautical miles. They contain no explosive matter, are in water-tight cases, and ignite by contact with water. To avoid risk they should *be kept dry*

DESCRIPTION.

(Plate IX, Figs. 1, 2.)

This marine signal or lamp is a tin cylinder having a conical projection in the middle of the top and a cylindrical tube with a conoidal frustum for a base projecting from the bottom.

The entire case is of tin except the cap over the bottom tube, and about a half inch of the apex of the top cone, both of which are soft metal.

When prepared for use, about $\frac{1}{8}$ " to $\frac{1}{4}$ " of the apex of the cone is cut off with a knife, exposing a small hole in a diaphragm placed $\frac{1}{2}$ " from the apex.

This hole is intended to admit the water when the signal is launched.

At the same time a hole is cut in the soft metal cap of the bottom tube for the same purpose.

The composition is mainly a preparation of calcium phosphate, which ignites on contact with water, and cannot be extinguished by either wind or waves.

The case is water-tight, and is painted to preserve from rust.

Dimensions.

	Inches.
Total length	8.5
Top cone: Altitude.....	1.5
Diameter of base.....	1.25
Cylindrical body: Length.....	3.5
Diameter	3.25
Ears: Length.....	0.75
Width	0.75
Bottom tube: Length.....	3.5
Diameter	0.75
Altitude of frustum	0.6

LABELS ON SIGNALS.

Obverse.

Holmes' Patent Inextinguishable Marine and Storm Signal Light.
Patent No. 301. February, 1870.

Caution.—This light must be burnt in the open air. On placing the lamp in water a most brilliant light is shown for 5 minutes, and a bright, steady light for 25 minutes afterwards. The lamp will continue to burn about one hour. The light cannot be put out by either wind, water, or bad weather.

Reverse label.

Instructions.—When required for use put the lamp through the hole of the float and secure it by passing the ears under the clips, screwing it well home with a slight twist. Hold the lamp with the pointed end

up, and cut off with a knife about $\frac{1}{8}$ to $\frac{1}{4}$ of an inch of the soft white metal, so as to expose the hole underneath. Afterwards insert the knife into the soft white metal end of the bottom tube, and cut a hole sufficient to admit water freely. The lamp will then be ready for use, and will ignite when placed on water.

PACKING.

Ten of these lights were sent to Sandy Hook, N. J., and turned over to the committee for trial. They were packed in sawdust inclosed in a tin case, which in turn was enveloped by a wooden box. When opened the lights or signals appeared as if they had been in store for a long time, and had received rough usage in transportation. Two of the signals had the upper caps torn loose for about half their circumferences. These were thrown into the sea without floats, and were carried off by the surf and tide. No floats were furnished with the signals.

EXPERIMENTS.

These took place at Sandy Hook, N. J.

Through the courtesy of Col. T. G. Baylor, U. S. A., president of the Ordnance Board, the committee were permitted to make their trials at the ordnance proving ground. Capt. W. S. Starring, Ordnance Department, U. S. A., the officer in charge of these grounds, furnished every facility in his power and gave valuable personal aid in conducting the trials.

The committee hereby extend their thanks to these two officers for their courtesy during these and the several other series of experiments made at Sandy Hook.

Square floats were improvised from strips of wood that were nailed together so as to allow a central space sufficient to admit the lamps. The first float made had small cleats nailed to two opposite strips of wood to hold the signal by its ears and steady it in position. The other signals were fastened to the float by tacks driven through the ears into the wooden strips.

No. 1. This signal was placed on a float, the caps at the top and bottom punctured to admit the water, and then thrown into the surf on the beach. It took fire readily and continued to burn although rolled over and over by the surf and overwhelmed by the waves. Time of burning unknown, as the inshore current carried it out of sight along the beach.

No. 2. This one was prepared in accordance with the directions. At 8.13 p. m. it was thrown into the sea and ignited immediately, producing a very bright light.

At 8.17 p. m. the bright flame decreased to one about equal in intensity to that of a good lamp.

At 9.13 p. m. the signal was half a mile from starting point and still burning. A heavy chopped sea was running, which caused alternate appearances and disappearances, according as the float rose on the crests of the waves or fell into the trough of the sea.

At 9.18 p. m. the light had disappeared. The next night, October 26, 1882, five signals were put in the water from the Sandy Hook wharf.

The following are the tabulated results:

No. of signal.	Time of launching.	Time flare died out.	Length of time bright light shown.	Time that light ceased to be visible.*	Remarks.
	<i>h. m.</i>	<i>h. m. s.</i>	<i>m. s.</i>	<i>h. m.</i>	
3	7 51	8 04 00	13 00	8 37	} The lights were visible 46 minutes.
4	7 51	8 05 50	14 50	.....
5	7 51	8 03 40	12 40	.....
6	7 51	8 05 50	14 50	.....
7	7 51	8 05 50	14 50	.....

* Four went ashore on beach and went out. The other burned a few minutes longer.

No. 8.—October 27, 1882. This signal was nailed to a float and placed in a tub of fresh water and ignited promptly. It was launched at 10^h 6^m 30^s a. m.; flame disappeared at 10^h 58^m a. m.; time of burning in still water, 51 minutes 30 seconds.
Respectfully submitted.

D. A. LYLE,
Captain of Ordnance,
JOHN C. PATTERSON,
Keeper Station 1, Fourth Dist., L. S. S.,
Committee.

SANDY HOOK, N. J., *October 30, 1882.*

8.—JONES' HAND-CART.
(Plate XI.)

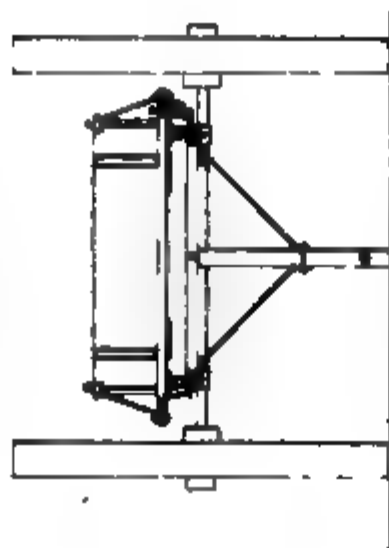
No. 3 BOWLING GREEN, N. Y.,
October 23, 1881.

SIR: Your committee has the honor to make the following report upon the "Jones' hand-cart," designed for the Life-Saving Service.
This hand-cart was referred to a committee consisting of Capt. D. A. Lyle, Ordnance Department, U. S. A., Superintendent D. P. Dobbins, Ninth District, and Keeper John C. Patterson, Station No. 1, Fourth District, U. S. Life-Saving Service, for trial and report.
The General Superintendent of the Life-Saving Service was requested by the Board to forward said hand-cart to Sandy Hook, N. J., for trial.
The committee directed Capt. John C. Patterson to proceed with the practical operations of the trial as soon as the cart should arrive.
A meeting of the committee was called for June 15, 1882, by authority of the General Superintendent. The committee met pursuant to that authority.
Present: Capt. D. A. Lyle and Keeper John C. Patterson. Capt. D. P. Dobbins, superintendent Ninth District, was prevented from attending by a severe accident, which rendered it impossible for him to travel. A letter was received from Superintendent Dobbins requesting a postponement, if possible, in order to enable him to recover sufficiently to attend the meeting; but as Captain Lyle was about to avail himself of a leave of absence, it was deemed necessary to proceed with the examination and trial, for which all arrangements had been made.

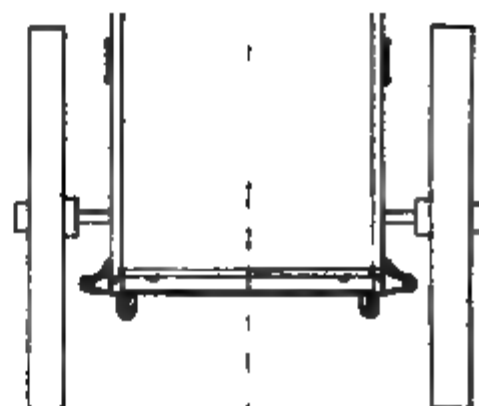
*Side Elevation
Wheel removed.*



*Sectional Elevation.
Thills removed.*



Ground-Plan.



LIFESAVING APPARATUS
—
JONES' IMPROVED HAND-CART,
AND
DOBBIN'S DETACHABLE THILLS,
FOR THE
LIFESAVING SERVICE
1882.



The committee then proceeded to carefully inspect the "Jones' hand-cart," and to compare it with the service cart. The cart submitted by Mr. Jones presents the same general appearance as the service cart and is similar in its construction, except the sliding arrangement of the body and the greater diameter of the wheels. No thills were furnished with the cart.

COMPARISON.

	Service cart.	Jones' cart.
	<i>Ft. In.</i>	<i>Ft. In.</i>
Diameter of wheels.....	4 0	4 6
Number of spokes.....	14 0	14 0
Width of fellyes.....	4½	5
Tire-service:		
Two iron bands, width of each.....	1½	5
Space between iron bands	1½	.....
Thickness of tire.....	½	¾
Thickness of fellyes.....	1½	1½
Tread.....	4 7½	(*)
Body:		
Length, inside.....	4 9	4 9
Width, inside.....	3 0	3 0
Depth, inside.....	10½	9
Diameter of slide-bars.....	.....	7½
Distance from body-bearing on axle to inside end of nave.....	.....	5½

*Five feet 4 inches on ground ; 5 feet 2 inches at top.

The committee had no means of determining the exact weight of the two carts; but they do not differ materially.

The iron axle has a cross-section of 1½ inches, as per specifications; this is found to be too small, as anticipated and indicated by Mr. Jones, who has suggested 1½ inches as the proper size.

The present sized axle is very apt to be deflected downwards in the middle by the load, as shown by the difference in tread above and below the body. The support in front has no braces to prevent lateral motion. The body is too shallow by at least 1½ inches. One coil of the service hawser, as usually stowed away, projects above the body, and, in consequence, is liable to become entangled or to slide off. The long slide-bars without central supports are liable to be bent, especially when going over rough ground.

When at a halt, the Jones cart would be a little more convenient to unload than the service cart, as the body may be pushed forward and part of the load transferred to the support, which also gives greater stability to the carriage. In this position the wheels do not interfere so much with the removal of the apparatus.

The draft appears to be lighter than the service cart, which was to be expected from the increased diameter of the wheels.

SUGGESTIONS.

1. The axle should be increased in cross-section.
2. The body should be 2 inches wider, and at least 1½ inches deeper, inside dimensions.
3. Braces should be attached to hold the support in position.
4. Additional eye-holes should be made to fasten the body in other positions besides the two already provided for.

COST.

Mr. Jones stated to the Board that he would furnish his carts, as per specifications attached and marked B, at the following rates, viz:

In lots of 100 or more at \$50 each.

In lots less than 100 at \$52.52 each.

REMARKS.

1. For the detailed accounts of the trials made with the Jones' hand cart, the committee respectfully invites attention to the report of Captain Patterson, appended hereto (marked A), and forming part of this report.

2. A tracing of the Jones' cart is shown in Plate XI.

3. The propositions and claims of the inventor are contained in his letter of February 10, 1882, appended and marked C.

4. The subject of a four-wheeled carriage for the service has been broached upon several occasions, and your committee would respectfully recommend that no permanent adoption of a model take place until such a carriage, or one possessing marked superiority over the service cart, has been constructed and submitted for trial.

List of papers returned with this report.

1. Report of Captain Patterson, marked A.

2. Specifications of hand-cart for United States Life-Saving Service, marked B.

3. Proposition and claims of inventor, marked C. (Letter of J. M. Jones, dated February 10, 1882.)

4. Tracing of Jones' hand-cart. Plate I. (L. R., No. 7067, vol. 11, L. S. S.)

5. Specifications of hand-cart. (Copy.)

6. Letter of J. M. Jones to General Superintendent, dated December 6, 1880.

7. Letter of J. M. Jones to General Superintendent, dated October 14, 1881.

8. Letter of J. M. Jones to General Superintendent, Dated November 23, 1881.

9. Letter of General Superintendent to President Garrison, dated March 4, 1882.

10. Letter of J. M. Jones to General Superintendent, dated May 19, 1882. (Copy.)

11. Letter of General Superintendent to President Garrison, dated May 23, 1882.

Respectfully submitted.

D. A. LYLE,

Captain of Ordnance, U. S. A.,

D. P. DOBBINS,

Superintendent Ninth Life-Saving District,

JOHN C. PATTERSON,

Keeper Station No. 1, Fourth Life-Saving District,

Committee.

PRESIDENT OF BOARD ON LIFE-SAVING APPLIANCES.

A.

Report of Keeper Patterson.

SANDY HOOK, N. J., June 9, 1882.

DEAR SIR: I would respectfully report upon the use of the "Jones' hand-cart" at my station as follows:

I received the cart on March 20, at the New Jersey Southern Railroad pier. Upon examination of the cart at the pier, I found one of the cross-bars between the shafts broken, and the wood in the bar to be very brittle ash. After putting in a new bar, I ordered my crew to transfer all the apparatus from the cart now in use to the "Jones' cart." I had fitted new uprights for the reel to rest in, and put in rests for the sand anchor. I measured the width between the wheels before loading, and found $\frac{1}{2}$ inch "gather" (or $\frac{1}{2}$ inch narrower at bottom than at top). Upon running the Jones' cart backwards and forwards in the station after loading, I remeasured it on the tread, and found that the wheels had spread nearly 2 inches. This is caused by the bearing of the body being too far from the hub of the wheels, it being 5 inches. I would suggest that the axle should be at least $1\frac{1}{2}$ inches square, and that the bearing be brought closer to the hub.

Ordered crew to fall in, and after muster moved to our practice ground, fired a shot, and ran apparatus. I found that upon unhooking the body and running the same forward it worked much better than the old cart, as there was no danger of the cart tipping either way, but I found there was danger of the rest under shafts tilting to the one side or the other and letting the shafts fall to the ground. They should be hooked from one side or the other—it does not matter which—so as to keep the upright in position. I found it much easier to remove the gun with the body run forward than to take it over the wheel, as would have to be done if the body were stationary.

I found in storing the apparatus in the cart that the body is neither longer nor wider than the old body, and that it is $1\frac{1}{4}$ inches lower, so that in coiling the hawser there was not room in the body, one coil being above the rail of the body, which, in actual service, and especially at night, would endanger the rapid work necessary by the coil being dragged from the body and entangled with other lines, &c.

I found the draft of the cart much lighter than the cart now in use, owing, I think, to greater height of wheels, wider tread, and solid tire, and better arms or axles. The wheels being higher are much better, aside from the easier draft, as it would be much better to get through snow and sand drifts and across shallow cuts with less likelihood of the sea reaching inside the body.

From a fair trial on the draft I believe that with a strengthened axle five to six men could pull this cart easier than eight men can pull the cart now in use.

April 16, 1882, I ordered my crew to get the Jones' cart ready for practice. Used the horse (without shafts), hitching the horse by a rope lashing similar to that used on the boat wagon. A horse hauls the cart very easily. I ran the apparatus, using it in a regular drill. I like the cart much better than the one now in use. I believe that the shafts should be of stronger wood, as there would be danger, in going to a wreck over drifts of old wrecks and sand with a horse, of breaking the shafts now placed under the body when the additional shaft is bolted on top of them for hitching the horse; and should this happen the delay might

be fatal. Both the cart shafts and the additional shafts for a horse should be made of strong wood. If of ash, it should be the toughest kind in use, as some ash is very brittle.

On April 20, 1882, I again used the Jones' cart in practice the same as I have always used the old cart. I had my crew pull it some three-eighths to one-half mile and back, and found the draft much easier than the present cart.

From my experience with the cart, tried fairly, I would say that with the axle strengthened, the body widened at least 2 inches, better material in shafts, additional eyes along the bed of the body, so that it could be hooked fast in other positions than the two now allowed, and the bar across the head of present shafts arranged with some bolt or catch to allow it to be removed when the additional shafts are attached for a horse, which would allow the horse to be hitched closer to the wheel, insuring lighter draft and less strain upon the shafts, that it would certainly be a great improvement over the cart now in use.

This cart (Jones') is well built, and the finish shows excellent workmanship.

I am, with respect,

JOHN C. PATTERSON,

Keeper No. 1, L. S. Station, Fourth District.

Capt. D. A. LYLE, *U. S. Ordnance,*

Chairman Committee on "Jones' hand-cart."

B.

Specifications for cart for U. S. Life-Saving Service.

WHEELS.

Wheels, extreme diameter, 4 feet 6 inches, the rims to be of well-seasoned white oak or second-growth chestnut, 5 inches tread by $1\frac{3}{4}$ inches thick. Tires of band-iron, one-quarter of an inch thick, one on each wheel and covering the whole width of the wheel, will be shrunk and securely fastened to the rims by No. 14 iron screws between every other spoke. The hubs to be of elm, $7\frac{1}{2}$ inches long by $5\frac{1}{4}$ inches in diameter, fitted with No. 12 iron bands $1\frac{1}{2}$ inches wide and projecting outside the rim of the hub three-quarters of an inch. Spokes, fourteen in number for each wheel, to be of hickory, $1\frac{1}{2}$ inches wide at hub, $1\frac{3}{4}$ inches at rim, and 1 inch thick. The axle to be of iron, 7 feet 4 inches in length and $1\frac{1}{4}$ inches square between the hubs, excepting in center, where it must be flattened down to $1\frac{1}{8}$ inches in depth. In the hubs it is to be rounded and $1\frac{1}{4}$ inches diameter, tapering towards the end to seven-eighths of an inch, and threaded for a nut, which should have a flange $1\frac{7}{8}$ inches diameter and be $1\frac{1}{4}$ inches square. At the collars the axle to be 2 inches in diameter, and shoulders of three-eighths inch, with a distance of 4 feet between them.

BODY OF CART.

The breadths forming the side-bottom sills to be $1\frac{1}{2}$ inches deep and $3\frac{1}{2}$ inches wide; they will be tenoned through the end-bottom sills, and secured with pins. Two wrought-iron straps, $1\frac{1}{2}$ inches wide and one-quarter inch thick, will be bolted to the lower surface of each breadth or side-bottom sill. They will be of the shape as shown in the drawings,

will be bent under the guide rail, and the axles of the friction rollers will be secured to them as shown in drawings. The end-bottom sills to be 3 inches wide and $1\frac{1}{2}$ inches deep, extending on each end $4\frac{1}{2}$ inches beyond the breadths, and rounded off and chamfered. Two pulls of round iron, one-half inch thick, will be attached to one of the end-bottom sills, as shown in drawings. The top-raves or rails, $1\frac{1}{2}$ inches wide by $1\frac{1}{2}$ inches deep, will be placed a distance of 8 inches in the clear above the breadths, and steadied off with five slat-pieces on each side, the size of the latter to be $1\frac{1}{2}$ inches by five-eighths inch, and tenoned and pinned through top and bottom rails. The rails to be 5 feet one-half inch long and placed 3 feet apart in the clear. The rails are also to be secured to the end-bottom sills, at each corner, by braces of seven-sixteenths-inch round iron, the ends of which must be properly fastened and bolted through the bottom sills with five-sixteenths-inch bolts, and fastened underneath with nuts and washers, and through the rails with one-quarter-inch rivets. In addition to the bed-piece, there are to be two cross-battens, 2 inches wide by seven-eighths inch thick, let into the breadth a depth of 1 inch, and fastened with three-eighths-inch rivets, to sustain the bottom panels, which will be of three-quarter-inch white pine, fastened with three No. 12 screws through each board and bed-piece, cross-batten, and end-bottom sill. The end pieces to be of three-quarter-inch white pine, with a cleat or slat-piece, $1\frac{1}{2}$ inches by three-quarters inch on the outer side, at each end lined on top with an iron plate three-quarters inch wide, of No. 12 iron, properly fastened with screws. They will be held in place with three-eighths-inch round-iron bolts, having eyes 1 inch in diameter at top. Two of these bolts will be fastened with a nut underneath. A bolt will be provided and attached to one of the round-iron braces in front of the body of the cart to secure the same to one of the shafts underneath; this bolt will pass through the end-bottom sill and will enter the shafts.

The dimensions of cart-box, in the clear, will be 4 feet 6 inches long by 3 feet wide; sides to be three-quarters of an inch thick.

FRAME.

Arms or shafts.—Arms will be bolted to the axle by one-quarter inch strap irons $2\frac{1}{2}$ inches wide, 2 bolts three-eighths inch diameter to each strap. These arms will be 7 feet 8 inches in length and will be connected by cross-bars in a substantial manner; they will also be protected at their outer surfaces with iron sheathing one-sixteenth inch thick, about two-thirds of their lengths. The cross-bar at one end of the arms will be rounded off and will be used as a hand-rail for pushing the cart. A leg of white oak, 2 feet $3\frac{1}{2}$ inches long, 2 inches wide by $1\frac{1}{4}$ inches thick at top, and $1\frac{3}{4}$ inches at its lower end, will be suspended by an iron hinge from one of the cross-bars. This bar to be protected on the inner surface with iron sheathing one-sixteenth inch thick. This leg or support is stiffened sideways by one-half-inch round-iron braces, attached to the middle cross-bar, and in the rear by a one-half-inch iron rod, suspended from the end bar. If not used this leg will be raised and hooked to the end bar, and the rod is secured to a hook attached to the middle rail. A guide-rail will be attached to the upper surface of each arm; it will be of round iron three-quarters inch diameter, 5 feet 3 inches long in all, and 4 feet 9 inches between shoulders. These guide-rails will be of the shape shown in drawings; they will be bolted to the arms by one-half-inch bolts, and in the middle they will be supported by loops secured to the arms. Rubber bumpers will be provided at each end of

the rod and secured against the shoulders, as shown in the drawings. Short chains with hooks will be attached to eyes secured to the sides of the arms to secure the body of the cart if desired.

Detachable thills with straight hooks will be provided; they will be secured to the arms by straps bolted to the lower surfaces of the arms. Thumb-nuts and threaded screw-bolts running through the hand-rail and arms will hold the thills in their respective positions. All the wood work to be of well-seasoned white oak or second-growth chestnut.

PAINTING.

The whole structure to have three coats of good oil paint, the last two to be blue, neatly striped or beaded with vermilion lines, and having the letters U. S. L. S. S. painted in white on one side.

Materials and workmanship to be subject to inspection, and when completed the whole to be delivered without additional expense to the Government at such railroad depot or steamboat landing as may be designated in the vicinity of the place of manufacture.

C.

Claims and propositions of inventor.

CINCINNATI, OHIO, *February 10, 1881.*

GENTLEMEN: I respectfully submit the following for your consideration:

1st. If my cart was made same size as the one you now use, the weight would be but 15 pounds greater—this being in the iron runners, friction guides, and rollers, and iron lining on frames and leg support.

2d. When I stated that the weight of my cart was about 50 pounds in excess of your present style, I should have added that 35 pounds of this were in the extra size *wheels*.

3d. Wheels the size called for in the specifications, which is 6 inches in diameter greater than used on your carts, could with safety be reduced 35 pounds (in wood material) and retain fully as much strength.

4th. If, as one of your members suggested, you want a larger bed to the cart, I will agree to add 6 inches to length and 4 inches to width without extra cost.

5th. I will agree to furnish an axle from $\frac{1}{4}$ to $\frac{1}{2}$ inch larger than called for in specifications without extra cost.

6th. As my cart always rests in a perfectly horizontal position it is more easily loaded and unloaded, and cannot possibly tilt over, or "kick up"—this cannot be said of your present cart. Again, in loading or unloading, the bed being drawn forward, the wheels are almost entirely out of the loader's way.

7th. When the cart is loaded and at rest the weight is equally thrown upon the axle and the leg. In your present style all this weight is upon the axle and the strain is great upon the axle and wheel.

8th. My estimates embrace a substantial pair of *thills* with *each* cart.

9th. When a horse is used my cart-bed can be instantly adjusted so as to throw upon his back enough of the load to make it easier upon him than pulling a perfectly dead weight. This cannot be done with your present cart.

10th. A two-wheel vehicle can be propelled over a surface, by man or horse, where it would be almost impossible to propel a four-wheel vehicle

Then, again, the cost of latter would be at least one-third greater than the former.

11th. I can furnish a cart, *including my patent arrangement and a pair of thills with each one*, size and finish of your present cart, for \$43. This proposition, however, I regard as superfluous, for I am satisfied you want something much better, both in material and size. Nor would I care to furnish such inferior work to the Government. Just here let me call your attention to the fact that this latter proposal is much less than your department has paid for carts. Mr. Kimball informs me that \$40 was the price—this *without* thills. For \$43 I can furnish them *with thills and my patent arrangement*.

12th. I make the following proposals:

For carts—strictly according to the specifications, including the extra size axles and wheels—

	Each.
For 300	\$48 00
For 200	49 00
For 150	50 00
For 100	52 00

13th. Or 500 carts for \$47 each.

14th. Or, if you are open to a proposition to purchase the exclusive right to have built and use my carts for the full life of my patent—nearly 17 years—I will, upon advice from you, make a proposition to that end.

15th. If you should accept proposition 13th, I will grant the U. S. L. S. S. license to have built any carts required in the 17 years, and by any manufacturer the service may select, at 5 per cent. on builder's cost as my royalty.

I have made these proposals so as to leave me scarcely a perceptible profit. This I can afford to do in order to receive the adoption of my invention by the Government.

Other branches of the Government service, where a smaller sized cart is used, would, I believe, adopt it also, and this, with its introduction into all kinds of business where hand-carts are used—and they are now used in vast numbers all over the land—would be the source from which my profit would be derived.

I can furnish my carts in quantity of from 50 to 500 in 90 days, and sooner if required.

I believe, gentlemen, that you will give my invention and my proposals your valuable consideration.

Very respectfully, yours,

J. M. JONES,
Paris, Kentucky.

To the PRESIDENT AND MEMBERS OF THE
BOARD OF EXAMINERS, U. S. L. S. S.,
New York City.

III.

EDDY PATENT LIFE OR SURF BOAT.

(Plate XII.)

Specifications.

1. *Name.*—Eddy surf or life boat.
2. *Whether patented or not.*—Patented.
3. *Nomenclature.*—Of but one part.

4. *Description*.—The hull is to be decked, and to be water-tight. Between the deck and keel is to be a partition running lengthwise, to strengthen the boat and support the deck. Cross-partitions to divide it into water-tight compartments not to exceed $2\frac{1}{2}$ feet apart.

Bottom of the boat to be constructed of heavier material than the sides and deck, and keel of sufficient weight to prevent her capsizing.

Above and around the deck and about 6 inches within the outside of the boat is to be a series of stanchions with open bulwarks and railings.

Is built without sheer, very sharp forward, good breadth beam, nearly flat amidships, with rounding bilges; round stern with easy run.

Attached to the rail is a series of thwarts and rowlocks, and at the bow and stern to be lock-chocks with rolls.

Reasons for above: The boat is *decked* to make it impossible of being swamped.

Open bulwarks to displace, but little wind and water, so she can be easily forced through.

No sheer for various reasons, among which are that sheer displaces wind and water, is but little protection to occupants, as a rough sea will break over any boat. It also tends to capsize the boat.

Round stern, to make her buoyant and less liable to capsize, and roomy for passengers.

Wide and nearly flat amidships, to make her bouyant and light draft.

5. *Material*.—Hull can be constructed of any suitable material, galvanized steel being much preferable, as it is the best combination of strength and light weight. Keel of galvanized iron. Railing to be light, hollow, galvanized iron piping.

6. *Dimensions*.—Length according to requirements, from 15 to 30 feet; width, 5 to $7\frac{1}{2}$ feet; depth, 12 to 24 inches; keel, wide and flat; bulwarks, 18 to 24 inches high.

7. *Weight*.—Keel from 200 to 500 pounds. Whole weight, with equal strength, will not differ materially from life-boats now in use.

8. *Cost*.—Cost will vary according to material used, size of boat, and beauty of finish.

9. *Method of construction*.—If built of steel or iron plate, to be riveted same as metallic boats.

10. *Method of using*.—To be rowed to and from wrecks, and also hauled in place of a life-car.

11. *Drawings*.—Copy of Patent Office drawing accompanying.

12. *Claims*.—I claim—

1. That this boat cannot be swamped.

2. Almost impossible to be capsized, and then only under circumstances seldom occurring. If capsized, the motion of the sea would right her.

3. Can be forced through a heavier sea or surf than any other boat now in use.

4. Can be hauled to and from a wreck when a life-car, for want of a mast, cannot be, and will carry passengers with much greater rapidity.

5. Is of great buoyancy and carrying capacity.

6. Is lighter draft, and can be built as light or lighter weight than life-boats now in use.

7. Is simpler and easier of construction than other life-boats.

DANIEL B. EDDY.

SOMERSET, MASS., September 30, 1882.

Fig 1

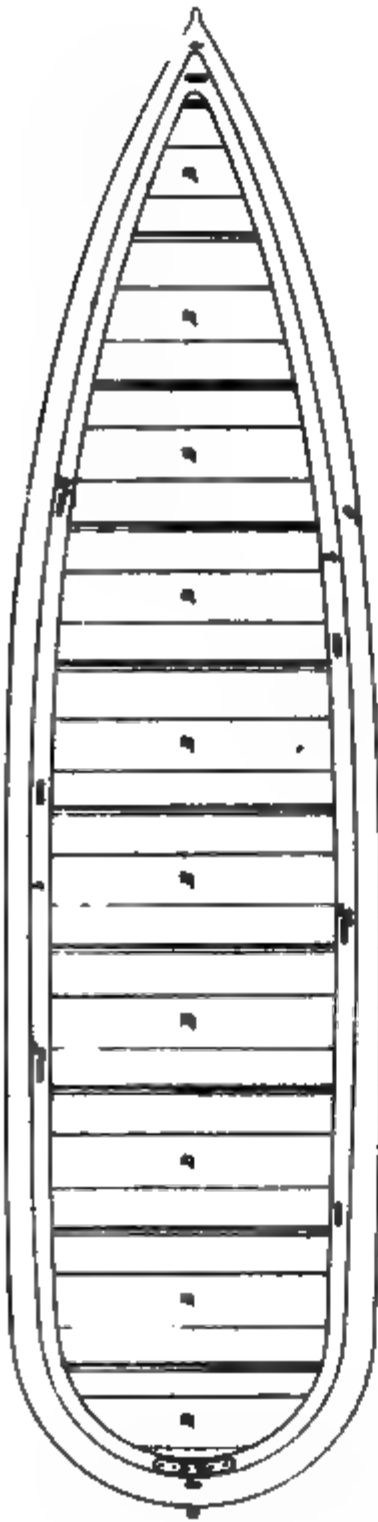


Fig 2

Fig 3

LIFESAVING APPARATUS.
EDDY'S PATENT SURF BOAT.
1882.

IV.

DWYER'S LIFE-SAVING STEAM LAUNCH.

DESCRIPTION.

The large boat to be 36 feet, more or less; breadth of beam, 12 feet, more or less; depth $3\frac{1}{2}$ to 4 feet, amidships, or as required by the power of the engine; bulwark high enough to protect those on deck. Six waterways to open out easily and relieve the deck of water shipped in sea, and closing up against the stanchion when pressed from the outside.

Side boats 4 feet shorter than the large boat, their breadth of beam to be 13 feet by 2 feet 4 inches deep amidships; sheer same as main boat, $\frac{1}{2}$ inch to the foot in length; iron railing or bulwark high enough to protect and give safe hold to those on deck. Each side boat to be airtight, with tanks fitting the inside fore and aft, close up to the deck. May be in as many compartments as deemed advisable.

The house over engine-room brought to a sharp point, projecting outward on top, so as not to give the water power to tear it up in a heavy sea. The bilge pieces on the inside and wales outside with broad timbers placed inside to fasten the braces to. There may be also perpendicular cleats between wale pieces outside to make additional fastenings. A wash board extends from the after part of the engine house to the stern to prevent water flooding the cock-pit. The bilge pieces on the outside can be kneed at the stern so as to strengthen the same in case of striking against a ship. The design is that of a surf boat, cutting the water sharp at stem and stern.

DANIEL DWYER.
Boat-builder, Marshall, Texas.

V.

EMERGENCY LIFE-BOAT PLUG.

By GEORGE A. LEAVITT, Jr.

(Plate XIII.)

Suggestion.—In June, 1881, the Narragansett, a steamer of the "Stonington Line," was burned and sunk in Long Island Sound; and when the life boats were brought into requisition, it was found in many cases that the plugs were lost, and the inflow of water rendered them (the boats) useless and imperiled life. This fact suggested the idea of the contrivance now under examination.

Importance.—The testimony of several of the survivors of the above disaster, printed in the papers of that date, and the private correspondence of some of said passengers with the inventor, show the importance of well-contrived methods of plugging boats, for in moments of intense excitement and with boats manned by inexperienced people, as they are likely to be on such occasions, the simplest, most easily worked, and reliable contrivance should be adopted.

Construction.—The "Emergency Plug" is such an one. Its construction is simple and strong. The plug consists of—1st. A brass plate

and inner tube, with vertical slots cut therein; 2d. An outer tube in form of cap, which screws over inner tube; thus opening or closing slots. The cap is prevented from coming off by a flange on upper end of inner tube, "playing" in chamber of cap, thus preventing loss or removal. An underplate has been added to give greater strength to fastening.

Operation.—The manner of working is as follows: On launching the boat, screw the cap down, thus closing the slots in inner tube and preventing the inflow of water. On raising boat to davits, unscrew the cap as far as possible, opening slots for outflow of water. The cap is prevented from coming off by the construction of inner tube.

Advantages.—It is the only reliable plug. It cannot be lost; is always in place; cannot be broken or get out of order; is always ready. No cap that can come off; no chain attachment; will drain a boat closer than any other plug except wooden or cork stoppers.

Objections to other plugs.—The wooden or cork stoppers are liable to be misplaced or lost. The caps of the automatic plugs are liable to be lost. The automatic plugs are liable to be fouled with floating matter, and when this is the case, and reliance is placed upon their automatic action, they are useless.

Tests for strength, &c.—A plug known as size No. 2 was mounted with underplate on a $\frac{3}{4}$ -inch cedar board, and board resting on cleats 14 inches apart, and all fastened to heavy timber. The purpose of cleats was to allow the board a slight "give," as much as a boat would have in water when subjected to heavy blows or sudden jars.

A solid piece of chestnut log, 13 inches in length and 8 inches in diameter, was used as a missile. Spars would probably be the heaviest thing thrown into a boat, and the chances of their hitting plugs are extremely slight. The cap was at first shut down and the piece of chestnut log was thrown at it with the full force of the experimenter, vertical and lateral blows being given. This was also done with the cap open at different degrees, until open to its utmost extent, and the plug sustained no damage whatsoever.

The plug, in the experimenter's opinion, will resist any blow that a boat is likely to receive without being "stove in," and so firm is its fastening that the boat would be torn to pieces before the plug is loosened.

Experiments have also been made with a view to its working and becoming obstructed by extraneous matter, like sand, &c., but in every case it has overcome all obstruction.

THE EMERGENCY LIFE-BOAT PLUG.

The plug consists of—1st. A brass plate and inner tube, with vertical slots cut therein; 2d. An outer tube in form of a cap, which screws over inner tube, thus opening or closing slots. The cap is prevented from coming off by a flange on upper end of inner tube, *playing* in chamber of cap, thus preventing loss or removal.

The manner of working is as follows: On launching the boat, screw the cap down, thus closing the slots in inner tube and preventing the inflow of water.

On raising boats to davits, unscrew the cap as far as possible, opening slots for outflow of water. The cap is prevented from coming off by the construction of the inner tube.

No. 1 plug, designed for a small boat: Diameter of plate, $2\frac{1}{2}$ inches; height of plug, 1 inch; length of boss (tube under plate), $\frac{3}{8}$ inch, threaded to screw in bottom of boat. Price, \$1.50; by mail, \$1.58.

No. 2, for wooden life-boats or ship's yawls: Diameter of plate, 4

Fig. 1.

Fig. 3.

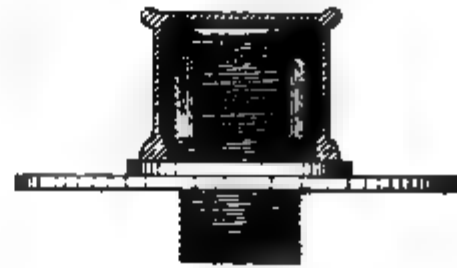


Fig. 2.

No scale

LIFE-SAVING APPARATUS.
LEAVITT'S EMERGENCY LIFE-BOAT PLUG.
1882.

inches; height of plug, $1\frac{1}{4}$ inches; length of boss, $\frac{1}{2}$ inch, threaded to screw into bottom of boat. A plate for under side of boat bottom is added to give greater strength to the fastening, the under plate to be riveted to plate of plug. Price, \$3; by mail, \$3.15.

No. 2a, for metallic life-boats: Is same as No. 2 except in length of boss, which is $\frac{1}{8}$ inch in length; plate to be riveted to metallic bottom. Price, \$3; mail, \$3.15.

No. 3, extra-heavy plug for wooden boats, launches, &c.: Diameter of plate, 4 inches; diameter of cap, 2 inches; height of plug, $1\frac{1}{4}$ inches; length of boss, $\frac{1}{2}$ inch, with under plate. Price, \$5; mail, \$5.25.

No. 3a, for metallic boats: Same as No. 3, except length of boss, $\frac{1}{8}$ inch, with under plate. Price, \$5; mail, \$5.25.

Plugs Nos. 3 and 3a are specially adapted for naval service.

N. B.—The slots in plugs will be oval in shape, instead of square, as shown in cut.

Claims of inventor.

It cannot be lost; is always in place; cannot be broken or get out of order; is always ready.

No cap that can come off; no chain attachment.

Its construction is simple and strong.

VI.

METHOD OF CONSTRUCTION AND PROPULSION OF VESSELS.

By ALONZO T. BOONE.

Having given much attention for a number of years to the construction and propulsion of vessels, and being fully satisfied that certain elements of marine progression have hitherto been wholly overlooked by nautical engineers, I would respectfully submit the following outline or description of an entirely new and novel form of boat (or vessel) and new method of propulsion.

Respectfully,

ALONZO T. BOONE.

Form.—My boat (or vessel) will consist of three tapering hollow cylinders, each cylinder being in its transverse section a circle, and in its longitudinal and vertical sections a form (best) represented by two lancet-shaped arches with their bases together, the forward arch about one-half the length of the one aft, and the span of each arch or greatest diameter of each cylinder about one-eighth of its length. The central cylinder is from one and a half times to twice the length and diameter of the outside ones, and the three are placed parallel to each other, and connected such distances apart as to make the width of the boat (or vessel) about one-third of its length; their points of greatest diameter are in a straight line across the vessel. The proportions and relative length and diameters of the cylinders may be varied to suit the use for which the vessel is intended.

Among the many important advantages of a vessel constructed on this plan, I will enumerate the following: The manner in which the cylinders are connected will keep the vessel under all circumstances in

an upright position when it tends to incline in either direction; the buoyancy of one outer cylinder and the weight of the other will resist the tendency and keep righted, thus obviating any necessity for carrying ballast. Such a vessel will ride securely the roughest sea; its lightness will always insure its mounting the approaching wave, and thus thus absolutely preventing the highest waves from dashing over it, the same feature will prevent its being capsized or submerged.

The speed attainable by this boat (or vessel) with a given application of power must exceed those of ordinary construction. The buoyancy of the hollow cylinders will prevent its drawing much water, and thus reduce friction. Their shape being pointed at both ends, they will cause no wave in front, and the long slope or taper back will prevent the suction behind. The cylinders are of that shape which gives the greatest amount of strength with the least material, and their strength can be increased by putting bulkheads in the ends of the central cylinder, and at intervals throughout the entire length of the outer ones. In this manner the liability to sink from injury is almost entirely removed.

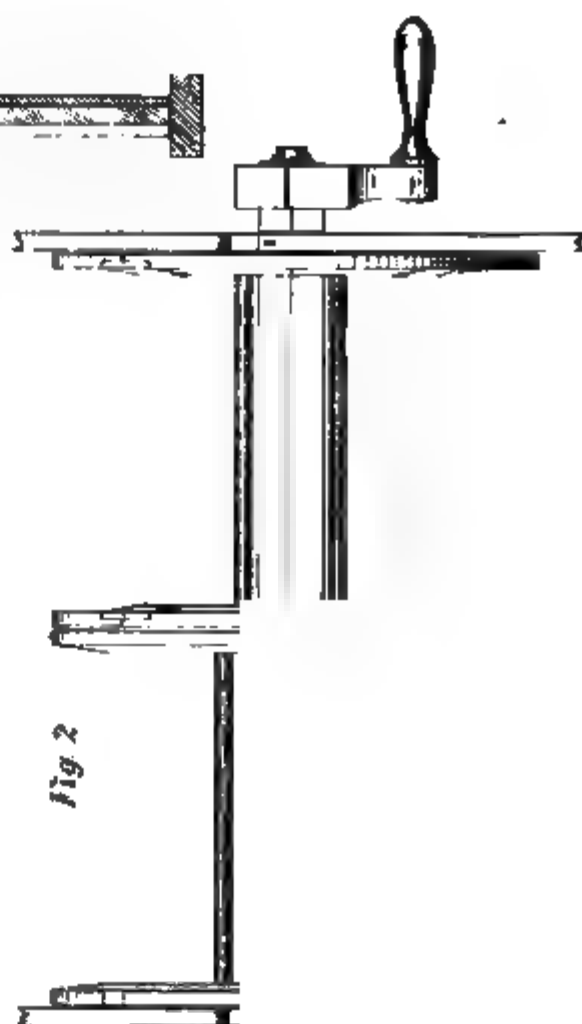
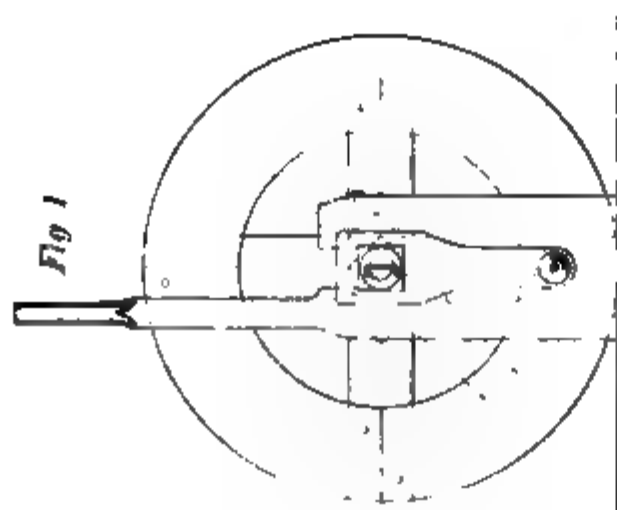
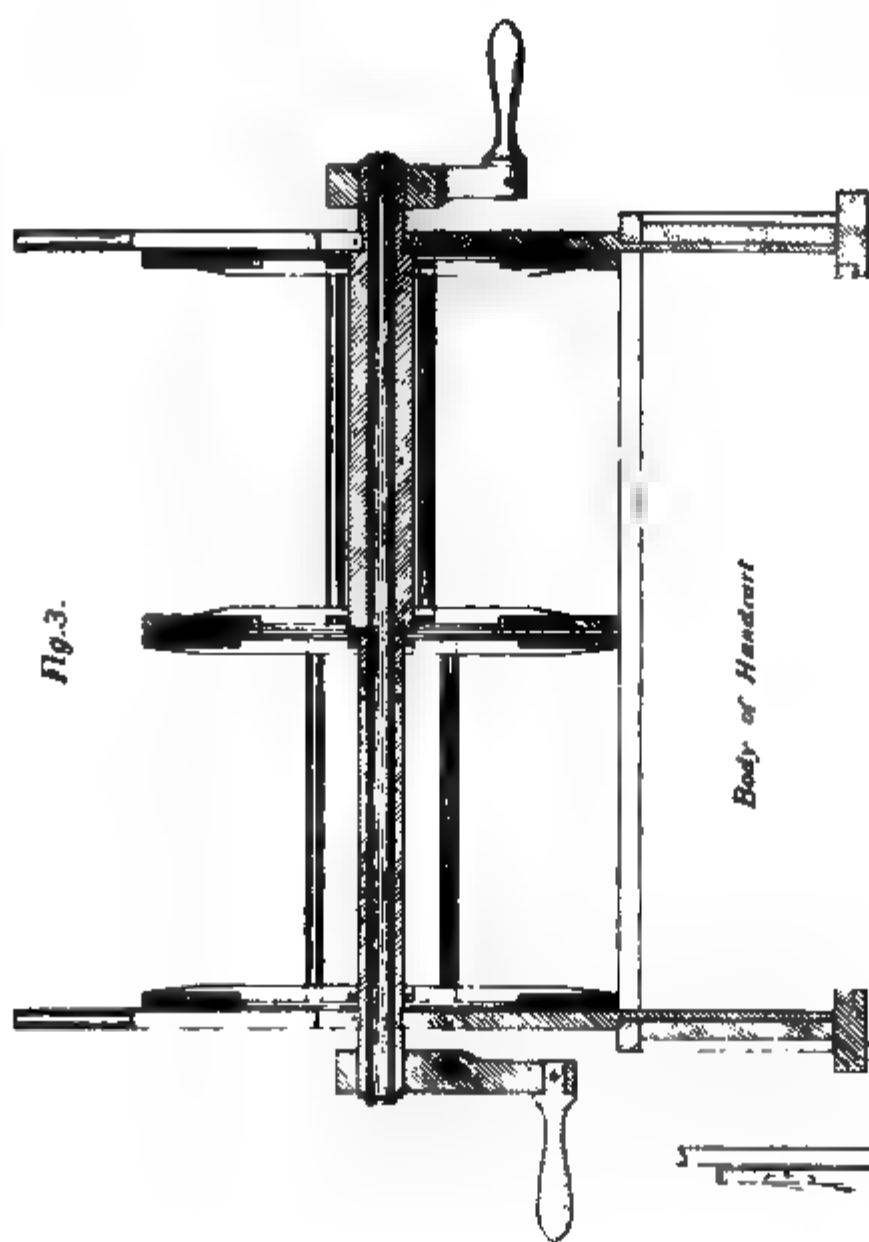
Propulsion.—The plan which I purpose to employ is the elastic power of compressed air, made to act upon the water so as to cause the movement of the vessel by means of the following arrangement: Within the outer cylinders and in the bottom of the central cylinder is placed a series of air receivers (or tubes) of any length or diameter desired, and into which a sufficient quantity of air is forced to propel the boat (or vessel) the distance required. From the air receivers (or tubes) an equal number of pipes pass through each side of the central cylinder (or vessel) below the water line, forming a series of greater or less extent as may be advisable. To obviate friction these pipes are terminated upon the outer surface of the boat (or vessel) by the half of a hollow cone, having its longitudinal plane surface next to the side of vessel, and allowing the air to escape from its base. The pipes are all properly packed in stuffing boxes, and are connected with mechanism in such a manner that their external openings may be turned aft, forward, or vertically, either simultaneously or separately, for the purpose of backing or turning the vessel. By means of stop cocks (or valves) little or much air can be let out in a constant stream or in jets, as may be desired. I design having receivers (or tubes) that will sustain a pressure of 2,000 pounds to the square inch. The air is to be compressed into a strong reservoir so placed upon the shore that a pipe (or hose) can be connected with the receivers in the vessel, and by turning a stop cock the receivers will be filled almost instantly. For life-boats stationed upon the lakes or sea-coast a wind-mill will be amply sufficient to compress all the air required for boats not constantly in use. If it is thought advisable to use an air engine for driving wheels (or screws), it can be much smaller than those now used for steam, and add but little to the weight of the boat.

*Description of boat (reference being had to sketch and model).**

A represents the outer skin of boat and cylinders, to be made of wood, steel, or iron, and connected to the thwarts (or planks) B.

BB are a series of thwarts (or planks) to keep the cylinders apart and hold the same in place, and to be used as seats at the ends of these thwarts (or planks), and lengthwise of the boat are fastened the curved stringer pieces G, which answer the purpose of gunwale, and for attaching row-locks and railing. C represents the upper floor over the pipes

* Sketch omitted.



LIFESAVING APPARATUS.
 DOBBIN'S DOUBLE-WHIP-REEL.
 LIFE-SAVING SERVICE
 1882



E; D, the lower floor upon which the pipes E rest; E, the tubes or pipes, which are to be made of iron, steel, or paper, and are connected with each other at the ends by curved pipe (or hose); FF, stringers upon which the floors rest; GG, gunwale; HH, railing.

Tubes (or pipes) can be made that will sustain a great pressure by winding steel, iron, or paper ribbons spirally in different directions and a number of thicknesses (as represented in sketch). If steel or iron is used it should be tinned before winding, and after being wound as desired then dipping them in molten solder, which will unite the layers of ribbons and make the same air-tight. If paper ribbon is used, each layer should be varnished (or cemented) as wound.

Respectfully,

A. T. BOONE,
137 *Thirty-seventh Street, Chicago, Illinois.*

VII.

DOBBINS' DOUBLE WHIP-REEL.

(Plate XIV.)

Heads of half-inch white pine, double thickness in cross section, secured together by white-ash spokes, wedged. Hub barrels of white ash, 3 inches square, bored out with 2-inch auger.

Spindle of 1½-inch gas-pipe, running through both hub barrels.

Standards of 1½-inch pine, 2 feet 6 inches high, with projecting stakes for beach-light and magazine supports, all secured to inside of cart sides.

Crank handles of wood or iron, as you please.

Leather washer on spindle between the two reels.

VIII.

MILLER'S LIFE-RAFT.

(Plate XV.)

Specification forming part of letters patent No. 237,574, dated February 8, 1881. Application filed October 13, 1880. (No model.)

To all whom it may concern :

Be it known that I, Henry Miller, a citizen of the United States, residing at Chappaqua, Westchester County, in the State of New York, have invented certain new and useful improvements relating to life-preservers and life-saving floats, of which the following is a specification:

The device may be made of small size for the use of a single person; but I will first describe it as of considerable size, and adapted to support several. It is intended to be carried on vessels in a folded or packed condition, and is by its construction readily put in condition for use and lowered into the water.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a plan view of my improved float. Fig. 2 is a corresponding side view, and Fig. 3 is a partial section on a larger scale, showing one of the joints.

Similar letters of reference indicate like parts in all the figures.

A A are long floats, composed of staves of wood or other suitable material, in proper form, put together with tight joints and secured by hoops. The wood may be chemically prepared to enable it the better to withstand drying and wetting. The construction is analogous to that of a common barrel, but with the ends pointed to facilitate the movement of the completed structure under sail or by rowing, paddling, or other suitable means. (See Fig. 3.)

At a convenient distance apart on each of the floats A, are permanently fixed two stout hoops, B B, carrying peculiarly formed eyes B', which have long holes approximating to tubes with their axes in a plane at right angles to the axis of the float. These eyes or tubes B' flare both ways from the center to the right and left, making them funnel-shaped at each end.

C C are transverse connections, formed with shoulders near each end, as shown. The round tenons C', which extend beyond the shoulders, are adapted to apply in the eyes or tubes B'. The tenons C' are thickest in the middle of their length, and taper each way therefrom. It follows from the double-funnel form of the eyes B' and from the converse form of the tenons C' that the floats are allowed to oscillate independently by rising and sinking at either end to a sufficient limit to allow the device to work with great freedom in a seaway. The floats may also, by virtue of this connection, lie one considerably in advance of the other.

D D are flexible ties, of ratlin stuff or other suitable material, fastened permanently to one of the floats, and provided with a snap-hook, D', at the other end, which latter is adapted to engage in a stout eye fixed in the end of the opposite float.

In spreading the device for use, the rigid pieces C C' are set in place, and the connections D D' stretched across the ends and secured.

On the top of each of the eyes B' is a pintle, B².

E E are longitudinal pieces of wood having holes e e adapted to match on the pintles B².

F F are small ropes extended from small eyes B³ on the bands B, as shown.

G G are transverse pieces fitted on reduced ends of the longitudinal pieces E.

H H are pieces of canvas secured to the end pieces G, respectively, and stretch from one toward the other, to constitute a deck. They are secured by a small rope or lacing rove through the grommets h. The tenons on the ends of the longitudinal pieces E are tapered both ways like the tenons C'. The holes in the transverse pieces G are tapered in the opposite direction—that is to say, they are smallest in the middle and largest at each end. It follows that the joint formed by the junction of the pieces G and E works freely, like the joint between the parts B' and C'.

J is a seat, secured to the longitudinal pieces E by cords J' rove through holes, as shown. These connections being made intentionally loose give liberty for the working required.

K K are rowlocks, fitted in the position shown.

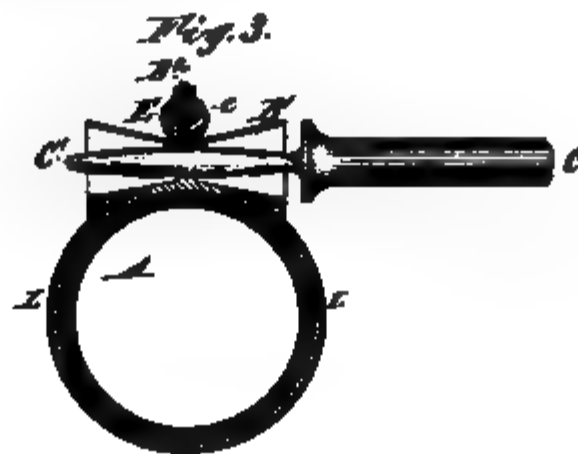
Oars may be added to the equipment of each float, or kept in convenient positions to be readily accessible in cases of emergency.

M M are knotted cords of sufficient length to serve in lowering my floats from the upper deck of the vessel on which they are used. So

PLATE XV.

No. 237,574.

Patented Feb. 8, 1881.



LIFE-SAVING APPARATUS.

MILLER'S PATENT LIFE RAFT.

1882.

soon as it is in the water, the upper ends of the cords being secured to the vessel, the parties to embark on the float lower themselves, the knots aiding their hands in keeping a proper hold while they descend hand over hand.

The whole device may be made smaller and used as a life-preserver for a single person. In such case the canvas H H will be formed with a sufficient hole in the middle to allow for the body of a stout person, or the canvas and its attachments G and the longitudinal pieces E may be omitted altogether. In short, the small construction requires only the floats A, with their hoops B, eyes B', and transverse pieces C C', with their joints formed as shown, to allow the required oscillation, and the ropes D, to keep the parts reliably together. In the life-preservers the longitudinal ropes F may be omitted.

Straps or cords over the shoulders to suspend the preserver to the person may be used.

I propose to furnish with these preservers and tied to each a small paddle, for use to aid in progress through the water.

Modifications may be made. A series of ropes may serve alone instead of the canvas H to form the support for the persons. A stout net may take the place of the canvas H. The transverse pieces G may be widened considerably, so as to serve as commodious seats; but I esteem it important that the ends be narrow to allow the free working of these parts as well as of the others, when the structure is subjected to severe and irregular strains in lying crosswise, or, still worse, quartering in a heavy sea. The transverse pieces C may be of small size, with enlargements or collars to form the shoulders near their ends, or they may be large all the way.

I believe that my device may be used with some success with the floats of solid wood or other material in a solid form; or, they may be made hollow, of papier-maché, or various other materials properly sized, and made water-proof; but I prefer the wood staves, as first described. The joints of the staves may be joined by water-proof glue.

To stow the apparatus in a small compass, the parts may be separated and the several rigid pieces laid parallel to each other, and lashed around with the same or different pieces of rope. I esteem it important that all the parts of the complete structure be lashed or otherwise securely fastened together; but I can make the parts more portable by stowing together simply one float, A, with one transverse piece, C C', one longitudinal piece, E, and one of the transverse pieces G, with its attached half of the deck-fabric H.

Taking care to make all my parts of uniform size, so that any two pieces will match together if applied at random from any part of the ship, my apparatus may for some reasons be considered preferable in that form; but a simpler plan is to lash firmly together all the parts constituting a complete float.

Lashing means may be provided for lashing helpless persons on the deck-fabric H.

A slide or guard of wood or other material in the form of a strip may be attached to the under side of each float to receive the friction of the side of the vessel and prevent the hoops from being knocked loose in the act of throwing over the float.

The flexible material H, besides forming a support for passengers, which I term a "deck," performs an important function in keeping the top transverse pieces, G, connected with the longitudinal pieces E. This function is very important in case any accident should break one of the end connections D.

I claim as my invention—

1. The eyes B', having considerable length transverse of the structure, in combination with the floats A, rigid parts C C', and ties D, the connections B' C' being made to fit tight at the mid length of each joint, and with liberal play at each end to allow the structure to work freely, as herein specified.

2. In combination with a pair of floats A, braced at a suitable distance apart by transverse pieces C, with flexible joints, as specified, the top frame, E G, having also flexible joints and flexible deck H of fibrous material, all arranged so as to be free to oscillate with the motion of the sea, as herein specified.

3. The pintles B² above the eyes B' on the floats A, in combination with the longitudinal pieces E e, connected to the transverse pieces G, with provisions H for supporting the occupants of the float, as herein specified.

In testimony whereof I have hereunto set my hand, at Chappaqua, New York, this 9th day of October, 1880, in the presence of two subscribing witnesses.

HENRY MILLER.

Witnesses:

IDA MILLER.

CORA MILLER.

IX.

LYON-GORDON LINE-THROWING PROJECTILE.

(Plate XVI.)

Specification forming part of Letters Patent No. 265,969, dated October 17, 1882. Application filed February 23, 1882. (No model.)

To all whom it may concern:

Be it known that we, Marcus W. Lyon and Wm. B. Gordon, of the Ordnance Department, United States Army, stationed at the Frankford Arsenal, Philadelphia, Pennsylvania, have invented a new and useful projectile for saving life and other useful purposes, as fully set forth in the following specification, reference being had to the accompanying drawings.

The object of this invention is to throw a line from one point to another for means of communication, to save life, and for many useful purposes. Its particular object is to throw a line into the window of a burning building to enable the occupants to draw up any device by means of which they may make their escape. It also finds an application, when used in guns of appropriate caliber, in throwing lines from ship to shore or from shore to ship, for the purpose of enabling persons to escape from shipwrecked or stranded vessels. Its small size and portability, when used with small arms, render it very useful for many purposes in the military service—such as aiding in the crossing of rivers and for conveying information through short distances when other means are not at hand, &c.

In the accompanying drawings the parts are shown as follows:

Figure 1 shows side views, partly sectioned, and also end views, of our device; Fig. 2, similar views of a modification.

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No. 265,969.

Oct. 17, 1882.

FIG. 1



FIG. 2



SECTION OF
GUN BARREL

LIFE-SAVING APPARATUS.

THE LYON-GORDON
LINE-CARRYING PROJECTILE.
1882.

A is a case or holder, forming with spindle the exterior part of the projectile; **B**, spindle to receive the bullet when fired; **C**, bullet; **D**, attachment for line; **E**, line.

The case or holder **A**, containing the spindle **B**, is secured to the muzzle of the gun, the flanged part of the case acting as a spring to hold it securely until the piece is fired, as shown in the drawings. The spindle **B** is thus centered in the bore of the gun, so that it will receive the impact of the bullet **C**. The spindle pierces the bullet and secures it in the case, the whole combination thus forming the projectile. The spindle may be pointed, and the head of the bullet may be either flat or have a shallow hole bored in its point, so as to be pierced more readily. The same result may be secured by not pointing the spindle, but by boring the hole deeper in the bullet, so that the spindle will be friction-tight in the bullet. The arrangement of the spindle and bullet enables the inertia of the external part of the projectile to be overcome gradually, so that a high velocity may be obtained without injury to the attachment for the line. This object may also be obtained by substituting for the case a holder with a conical cavity for receiving the bullet with substantially the same result as described above.

It will be understood that the air in the gun-barrel is permitted to escape through slots in the case **A** (shown in dotted lines) when the gun is fired before the bullet reaches spindle **B**.

The projectile can be used with any arm, and the manner of doing so is as follows: The exterior part of the projectile, consisting of the case and spindle, is secured to the muzzle of the gun, as described, and the line attached. The cartridge, with the bullet modified as above, is then placed in the chamber ready for firing. The line may be faked in a box attached to the barrel, or laid out on the ground, so as to be taken up easily; or a ball of wrapping twine may be used instead of a faking-box, the line coming out from the inside of the ball when the piece is fired. The gun as thus prepared is aimed and fired and the bullet attaches itself to the spindle in the manner described, the line being thrown to the desired point.

The advantages of this invention are, first, portability and ease of application; second, adaptability to any small arm or line-throwing cannon; third, the inertia of the combination on the muzzle is overcome gradually, thus allowing a high velocity and secure attachment for the line; fourth, the accuracy of fire when used with rifles enabling a line to be thrown into the window of any high building when on fire, affording a rapid and easy means of escape.

Having thus described the value and object of the said invention, we claim—

1. A line-bearing cap to fit over the muzzle of a gun, said cap having a passage for the escape of gas, and being adapted to rest upon and become part of the projectile when the gun is fired, substantially as described.

2. A line-bearing cap adapted to fit upon the muzzle of a gun, and having a central spindle extending toward the bore of the gun to engage with the bullet when fired, as set forth.

M. W. LYON.
W. B. GORDON.

Witnesses:

J. J. O'REILLY.
JAS. B. DUFFY.

A.

FRANKFORD ARSENAL,
Philadelphia, Pa., August 29, 1882.

SIR: We have the honor to call your attention to an improvement upon line-carrying projectiles invented by ourselves, and to request if practicable, that the sample forwarded by mail may be submitted to your Board on life-saving appliances. (This can be used with any caliber .''45 rifle; the cartridges sent are loaded with 8 grains of powder.)

1st. Our device is known as the "L.-G. Line-carrying Projectile."

2d. It was patented April 11, 1882 (publication delayed 6 months).

3d. Referring to the accompanying drawing, A is the spindle, B the cap, and C the attachment for the line.

4th. It is placed on the muzzle of the gun, and becomes a part of the projectile used with the arm after it has been fired.

5th. The spindle is made of iron and steel, and the cup of copper or brass (other materials could be used for either of these).

6th. They vary in size according to the arm with which used.

7th. And the weight likewise varies.

8th. Those for use with small arms can be made for 25 cents each (an estimate furnished by the Winchester Repeating Arms Company), and if made in large quantities at a much reduced price.

9th. The cap is drawn from sheet metal, and the spindle made by the screw machine.

10th. Our projectile, with line attached, placed on the muzzle of the gun.

11th. And the projectile used with the gun, reaching the muzzle, attaches itself to our projectile and carries it along in the air with it.

12th. The accompanying drawing is for the size used with caliber .''45 rifles. The principle can be applied to any size caliber.

13th. Being placed on the muzzle of the arm, no special gun is necessary, and when used with one that is rifled great accuracy is obtained.

We have thus far only used it in the caliber .''45 rifle, and with charges of 10 grains of powder throw a line 100 yards.

We are, very respectfully, your obedient servants,

MARCUS W. LYON,
Lieutenant of Ordnance,

For himself and W. B. Gordon, Lieutenant of Ordnance.

S. I. KIMBALL,

*Gen'l Sup't of the Life-Saving Service,
Treasury Department, Washington, D. C.*

X.

UNIFORM FOR LIFE-SAVING CREWS.

Report of Keeper JOHN C. PATTERSON.

LIFE-SAVING STATION No. 1,
Sandy Hook, N. J., November 1, 1882.

SIR: As requested at the last meeting of the Board that each member of said Board should inquire into the matter as to "what kind of a uniform, coat, trousers, cap, hat, and shirt would be acceptable to the men of the Life-Saving Service," I would respectfully report as follows:

I have seen and conversed with a number of the keepers and crews

of the Fourth District, and find that the designs* that I herewith present for your consideration are thought to be practicable and within the reach and ability of all the men in the Life-Saving Service.

1. *Storm hat*.—A storm hat is a very necessary article of wear. If the men should have a uniform it would not often be worn in a storm or in going off in the life-boat, when the men are cased in their oil cloths. Experience teaches me that something should be worn to indicate what we are; as often in boarding stranded or disabled vessels, where our services are freely and willingly offered, we are roughly and insultingly answered, being taken for wreckers and sometimes worse. With the prominent shield on the front of our "sou'westers" and the letters "U. S." and the words "Life-Saving Service" on the same, it would be known at once who and what we are, and there would be no need of explanation.

2. *Dress cap*.—A large number of the men, being proud of the service, desire to wear some article that will indicate that they belong to it. The dress cap will meet this requirement.

3. *Trousers*.—The trousers are made of the ordinary blue Middlesex flannel. They are dressy and useful for wear at any time during the "active" or "inactive" season.

4. *Dress coat*.—The dress coat is also a useful article of wearing apparel. By a change of buttons the coat (having eyelets) could be worn under any circumstances. I would suggest placing on the sleeves bands, as seen in sketch. *One band*, three-quarters inch wide, on each sleeve to mark 3 years' service. *Two bands*, three-quarters inch wide and 1 inch apart on each sleeve for 5 years' service. *One band*, 1½ inches wide, on each sleeve for 10 years' service. *One band*, 1½ inches wide and one band a half inch wide on each sleeve three-quarters inch apart for 15 years' service. For longer service the bands could be changed as thought best by the General Superintendent of the Life-Saving Service. The color of bands might also be designated by him.

5. *Shirt*.—A uniform shirt would be something practical and useful, as in some districts during the season of active service a coat is but seldom needed. So that a neat uniform shirt, either blue or white, with the number of the station and the initial letters of the service on the front, would involve little expense, and each man, wherever he was, would be known as belonging to a life-saving crew. I think the buttons should be especially designed for the service, with the letters "U. S. L. S. S." raised in relief upon them. I respectfully submit the sketches accompanying this report for the consideration of the Board.

Very respectfully,

JOHN C. PATTERSON,
Keeper Life-Saving Station No. 1, Fourth District.

F. R. BABY, Esq.,
President of Board on Life-Saving Appliances.

Estimated cost of suits.

Storm hat, from about	\$1 25 to \$1 50
Dress cap, from about	1 50 to 1 75
Trousers, from about	3 50 to 5 00
Dress coat, from about	7 00 to 7 50
Shirt (if needed), from about	2 25 to 3 00
Total	15 50 18 75

* The plates are omitted.

XI.

THE FOX "VACUUM GUN OF '82."

(Plate XVII.)

The following extracts, from a lengthy printed circular submitted by the inventor to the Board, will furnish all the information necessary to comprehend the plan and object of Mr. Fox's invention, so far as it relates to the Life-Saving Service.

DESCRIPTION.

[Extracts.]

* * * * *

A little reflection will enable any person to see from the drawing, that the mechanism to the right—which consists of a lever, a link movement, and a toothed rack and pinion—is intended for drawing back the sliding piston, *a*, and its guiding rod, *b*, for the purpose of forming a vacuum, or empty space without air, upon the other side of said piston head, and within the cylinder, *c*, after the insertion of the stem or handle of a large arrow, *d*, or similar missile. On account of the size of this arrow, it may be called a javelin. The immediate effect of an outward movement of the piston, it will be seen, is to cause an inward movement of the javelin, for the exterior atmosphere near the muzzle of the gun immediately follows, or immediately presses upon the arrow, so as to cause it to enter the cavity of the cylinder. The amount of movement or working stroke is limited to just sufficient linear length to make the lever mechanism convenient and practical, and to permit the operation to be conducted by one man quickly and easily.

At the inner end of the toothed rack, *e*, it will be seen, there engages the last tooth of a row of teeth or cogs, in what is called a segment pinion. Upon the rim or surface of this pinion, the teeth are absent in part of its circumference. It must be noted that after the pinion has revolved far enough, to operate the entire rack, a sudden slip or disengagement of the cogs occurs, and the pinion rapidly turns with its plain side upwards, towards the rack, so as not to check or interfere with the return movement, which is instantaneous, or which passes with great velocity and force. It must also be noted, that the movable connection of pivots and plates, upon which the lever arm swings or turns, is so constructed that a motion is imparted to the pinion, additional to that of its sudden partial revolution on release of contact. The link device operates in such a manner as to carry the pivot upon which the pinion turns forwards and downwards, when under pressure by the lever above. This is a simple structure, and appears to cover the whole requirement, no other addition being necessary for guns of this pattern, unless they are built of an extraordinary size—in which case, the change necessary is in placing extra gear wheels between the lever and the rack, to give the desired power; or, in elongating the lever.

* * * * *

It will be seen that no powder is required, and no explosive of any kind, by this gun. This is obviously quite a saving of expense. This machine is also durable, always easy to keep clean and ready for instant service. The cost of its construction, if undertaken at Government ex-

pense in the coming time, will be reduced to a moderate figure, and the difficulties now attending its being made well will be all overcome.

* * * * *

I design its adaptation to the National Life-Saving or Coast Service as the proper instrument to use for projecting rockets from the shore, by which to carry an escape line to the distressed crew or passengers of a wrecking vessel during a storm. It may be used on the lakes as well as on the seaboard. In addition to this plan I also suggest as an experiment for the same coast service the building a form of boat or canoe upon plans (such as I shall hereafter give gratuitously) by which not only may the carrying of a rope to the distant ship be effected, but other aids be sent to the drowning mariners much more speedily and effectively than at present by the best means used. This boat must be a light steel shell, in construction so formed as to scud or skip across the surface of the waves, the boat to be itself propelled to its destination by the vacuum gun.

METHOD OF USING.

The ill-fated ship is nearing the coast to which it was bound, but cannot on account of the fury of the sudden gale get safely to port. The breakers in the immediate vicinity of the life-saving station tell that dangerous rocks have been struck, and we witness the sinking of a noble ship and the drowning of her crew.

* * * * *

An alarm is sounded. * * * Immediately the service men run out to the beach, taking with them "the Fox gun," which is always ready at the station, like a fire-engine. In the picture [omitted] we see the horses now unhitched, and the gun waiting for the landsman on shore to make fast the line pin. He is driving it into the sand with a hammer. It is called the shore spike, and has a long, flat, trowel-like point as an anchor. The forward part of the gun wagon has underneath it a hollow drum, which rolls around like the other wheels at the rear of the wagon, and serves to run the wagon to the water. This hollow drum acts as a float, and when the huge tidal waves come in the wagon-bed is by this means converted into a floating battery or stage.

Now it will be seen that so soon as all hands are on the spot, and the relief boat is ready, the marksman primes his gun. There comes the monster wave rolling to shore. At a certain moment the gun is fired, and the little boat is seen speeding over the billows. It leaps from crest to crest of every angry wave and heaving swell, just as if conscious of its actual power to brave the dangers of the deep, and to carry the glad tidings of help and hope to the ill-fated passengers and crew.

We must suppose that * * * the passengers on board this ship are familiar with the little relief boat.

* * * * *

So every one is waiting for the gun to come along to the shore, and as it fires many jump into the sea in expectation of safety. There is a brave sailor in that little boat who will soon put out his head to look for the struggling, helpless crew. But the gentle reader must know that the sailor does not leave the gun in a seated position. He lies down at the bottom of his canoe with his feet toward the stern, enveloped in an elastic air sack, so that he receives no injury when the gun is discharged. Around him is a tarpaulin cover which fastens to

the waist, thus making him, as it were, a part of his canoe, much resembling a Greenland fisherman.

He has in the boat a long cord, to which is attached a bundle of rubber bags containing compressed air, each having a tube and stopper, and these he cuts off rapidly with his jack-knife as soon as they are pulled out of the hatchway; he then throws them quickly about to the drowning people. By placing the ends of these tubes in their mouths, many of the passengers are enabled to breathe, and are thus kept alive until they reach the escape line which fastens the boat to the shore. By this line the little boat is hauled in, when the sailor hoists his flag—the signal of “pull the passengers to shore!”

Several of these little boats and sometimes an extra gun may be kept at a station. My belief is that with these aids, in addition to the life boats now in use, and the rockets for carrying a stout rope to the ship, modern shipwrecks may be deprived of much of their disastrous terror, though at best they are very fatal and dreadful.

LIFESAVING APPARATUS.

FOX'S "VACUUM GUN OF 1882."

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LIFESAVING APPARATUS
 DOBBIN'S FIRING-PLANE,
 WITH
 TRAVERSING CIRCLE,
 FOR LIFE BOAT
 1882.

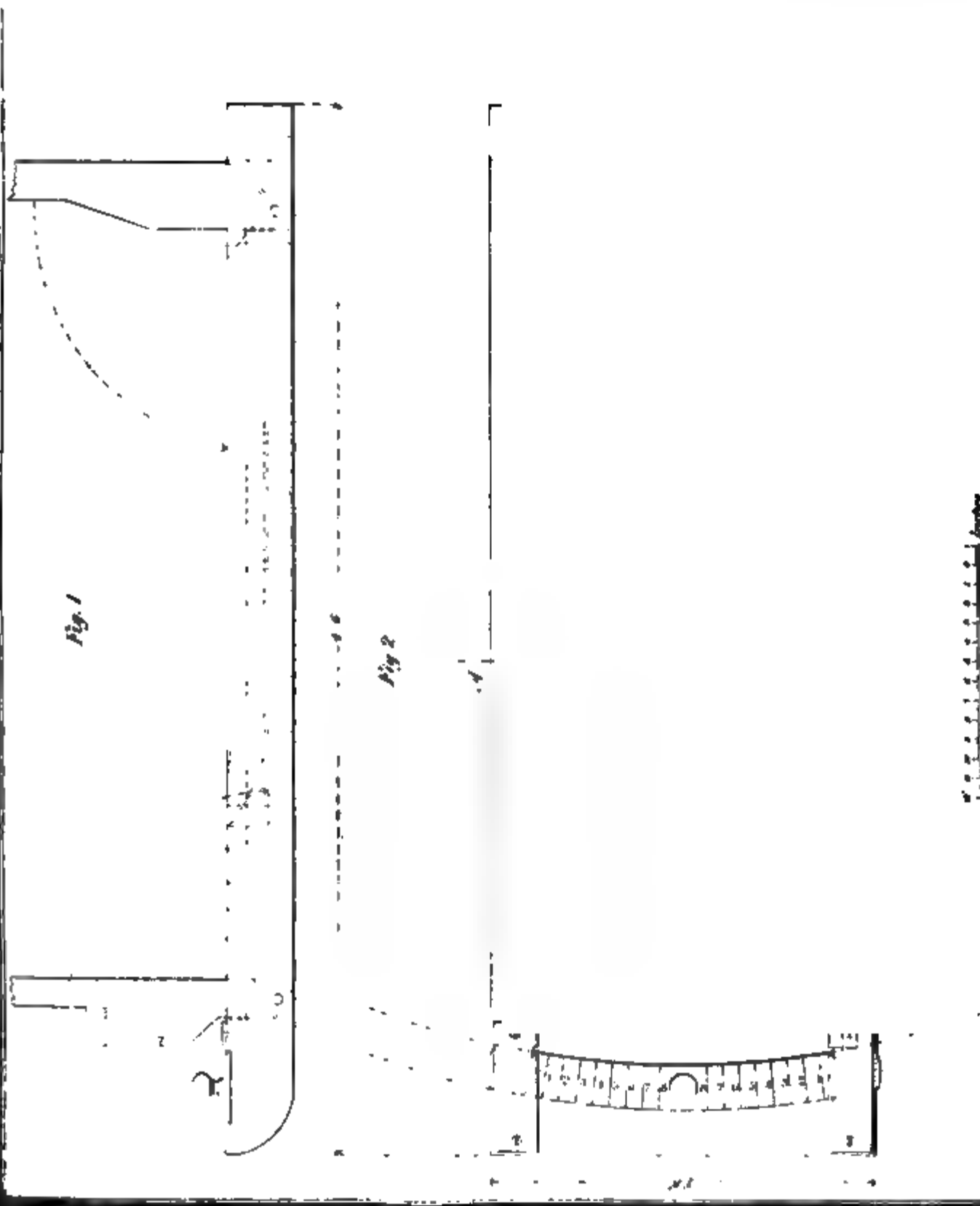


PLATE XX.



Fig. 1.

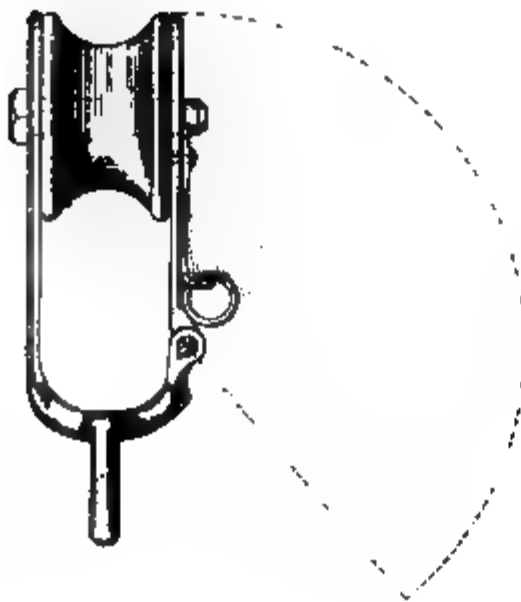


Fig. 2.



Fig. 3.

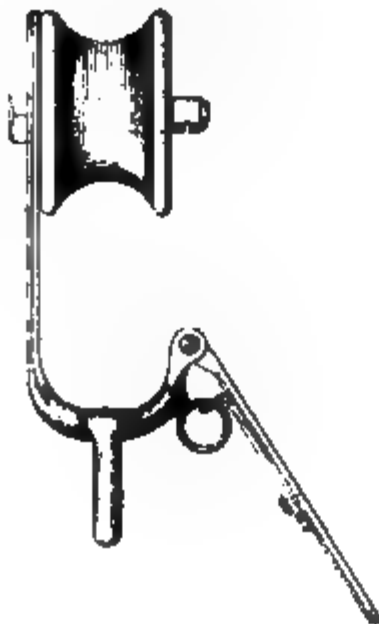
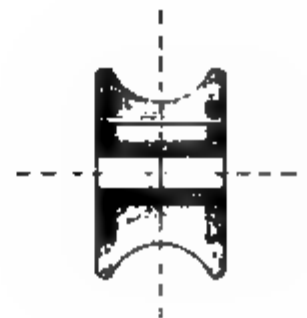


Fig. 4.



LIFESAVING APPARATUS
DOBBIN'S TRAVELER BLOCK
FOR USE AT
LIFESAVING STATIONS
ON THE
GREAT LAKES.



LIST OF PLATES.

EXPLANATION.

PLATE I.

This plate shows the McLellan tripod and traveler-block in operation; also, front and side views of the traveler-block with section and elevation of one sheave.

PLATE II.

FIG. 1.—Views of vent punch for Lyle gun.

FIG. 2.—Vent gimlet for Lyle gun.

PLATE III.

This plate shows the following views of the McLellan tripod:

1. Side view.
2. Front view.
3. Ground plan.
4. Section of head.
5. Bottom view of head.
6. Tripod folded for transportation.

PLATE IV.

FIG. 1.—Hale war rocket (U. S. 1855).

FIG. 2.—Congreve war rocket.

FIG. 3.—American signal rocket.

FIG. 4.—English signal rocket.

PLATE V.

FIG. 1.—End view, longitudinal and three cross sections of Hale war rocket.

FIG. 2.—Rear view, longitudinal and two cross sections of Hale's life-saving rocket.

FIG. 3.—Longitudinal section of McDonald's improved Hale war rocket.

PLATE VI.

FIG. 1.—Longitudinal section of Walbach's rocket.

FIG. 2.—Longitudinal section of Hunt's rocket.

FIG. 3.—Longitudinal section of Detwiller's rocket.

PLATE VII.

FIG. 1.—Cunningham's line-carrying rocket and rocket-stand.

FIG. 2.—Side elevation of rocket.

FIG. 3.—Longitudinal section of rocket.

FIGS. 4, 5.—Transverse sections of rocket, showing the two methods of arranging the composition.

PLATE VIII.

FIG. 1.—Cranston's safety-lighting attachment for patrol lanterns.

FIG. 2.—Front elevation of attachment.

FIG. 3.—Igniter before curving.

FIG. 4.—Rubber washer.

FIG. 5.—Assembling screw.

FIG. 6.—Gate.

FIG. 7.—Safety-lighting attachment in detail.

FIG. 8.—Wick-picker.

PLATE IX.

- FIG. 1.—Top view of Holmes's marine signal.
 FIG. 2.—Side elevation of Holmes's marine signal.
 FIG. 3.—Side elevation of Jackson's self-igniting signal.
 FIG. 4.—Longitudinal and cross-sections of same signal.
 FIG. 5.—Longitudinal section and top view of cap.
 FIG. 6.—Side elevation and top view of wooden handle.

PLATE X.

COSTON'S NEW BEACH LIGHT AND HOLDER.

- FIG. 1.—Elevation of upper end of holder.
 FIG. 2.—Elevation of lower end, showing shoe.
 FIG. 3.—Longitudinal section of upper end.
 FIG. 4.—Elevation of small beach light.
 FIG. 5.—Elevation of large beach light.
 FIG. 6.—Section through lower end of beach light.

PLATE XI.

(Showing views of Jones' improved hand-cart and Dobbins' detachable thills.)

PLATE XII.

- FIG. 1.—Plan of Eddy surf-boat.
 FIG. 2.—Side elevation.
 FIG. 3.—Transverse section.

PLATE XIII.

- FIG. 1.—Perspective view of Leavitt's emergency life-boat plug.
 FIG. 2.—Section of bottom of boat showing plug.
 FIG. 3.—Axial section of plug.

PLATE XIV.

DOBBINS' DOUBLE WHIP-REEL.

- FIG. 1.—End elevation.
 FIG. 2.—Front elevation.
 FIG. 3.—Longitudinal section.

PLATE XV.

MILLER' LIFE-RAFT.

- FIG. 1.—Plan.
 FIG. 2.—Side elevation.
 FIG. 3.—Transverse section of one boat, showing method of connecting boats.

PLATE XVI.

- FIG. 1.—Lyon-Gordon line-carrying projectile No. 1.
 FIG. 2.—Lyon-Gordon line-carrying projectile No. 2.
 NOTE.—Above designed for use with caliber .45 rifle.

PLATE XVII.

(Showing partial section and elevation of the Fox "vacuum gun of '82," with relief boat and occupant in position for firing.)

PLATE XVIII.

DOBBINS' FIRING PLANK FOR LYLE GUN.

(Showing gun, carriage, and pointing sticks.)

- FIG. 1.—Side elevation.
 FIG. 2.—Plan.
 FIG. 3.—Section on A B of Fig. 2, without showing gun and carriage.

PLATE XIX.

DOBBINS' FIRING-PLANK WITH TRAVERSING-CIRCLE.

- FIG. 1.—Elevation.
FIG. 2.—Plan.
FIG. 3.—Cross-section.

PLATE XX.

- FIG. 1.—Perspective view of Mitchell's canvas life-car.
FIG. 2.—Richardson's row-lock closed.
FIG. 3.—Richardson's row-lock open.

PLATE XXI.

DOBBINS' TRAVELER-BLOCK FOR LIFE-SAVING STATIONS ON THE LAKES.

- FIG. 1.—Front elevation, block closed.
FIG. 2.—Side elevation.
FIG. 3.—Front elevation, block open.
FIG. 4.—Section of sheave.

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